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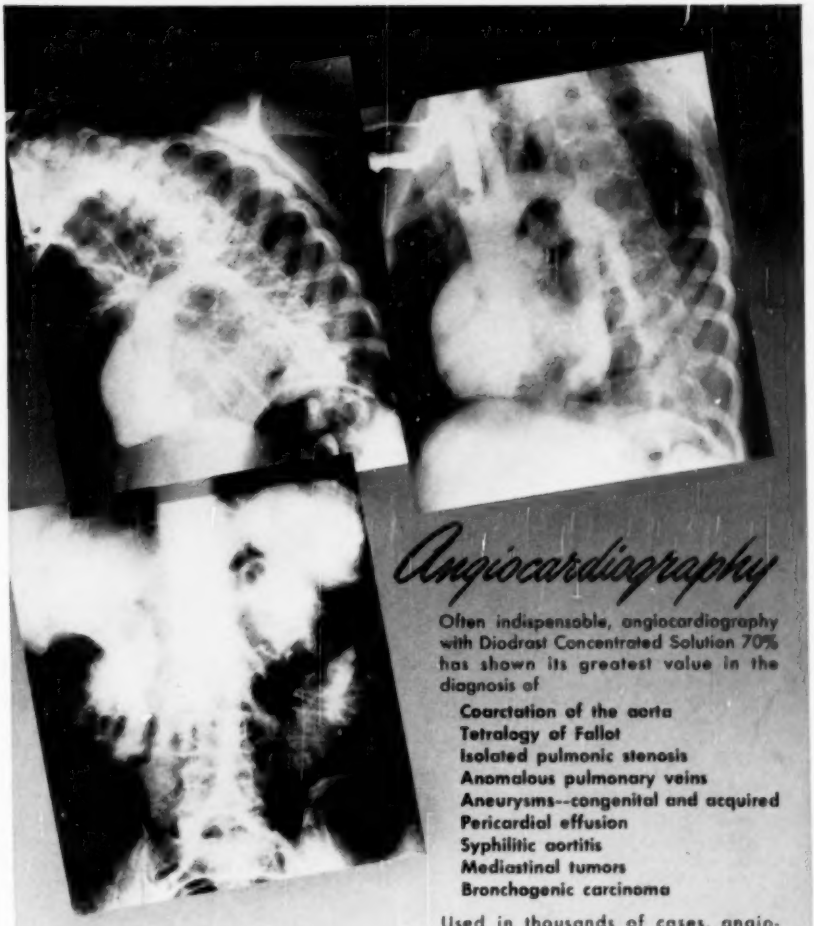

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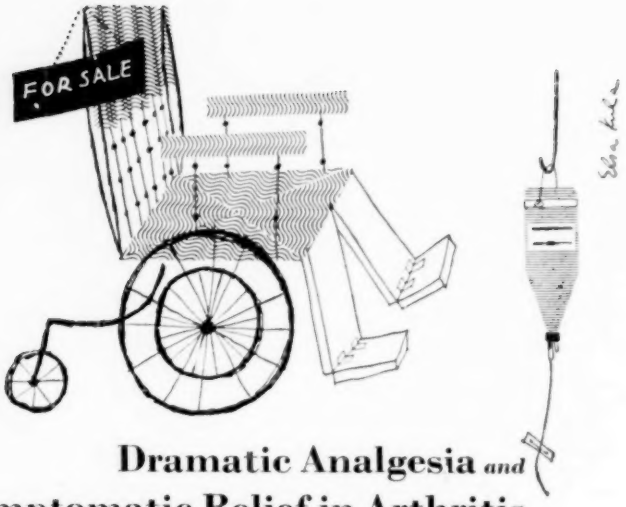

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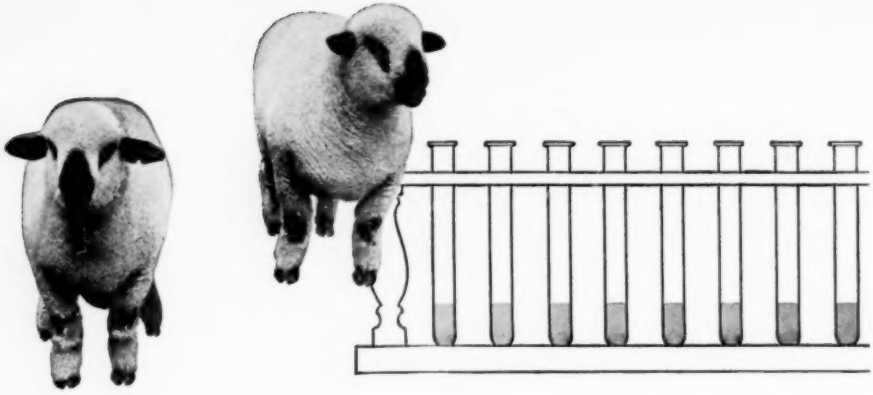

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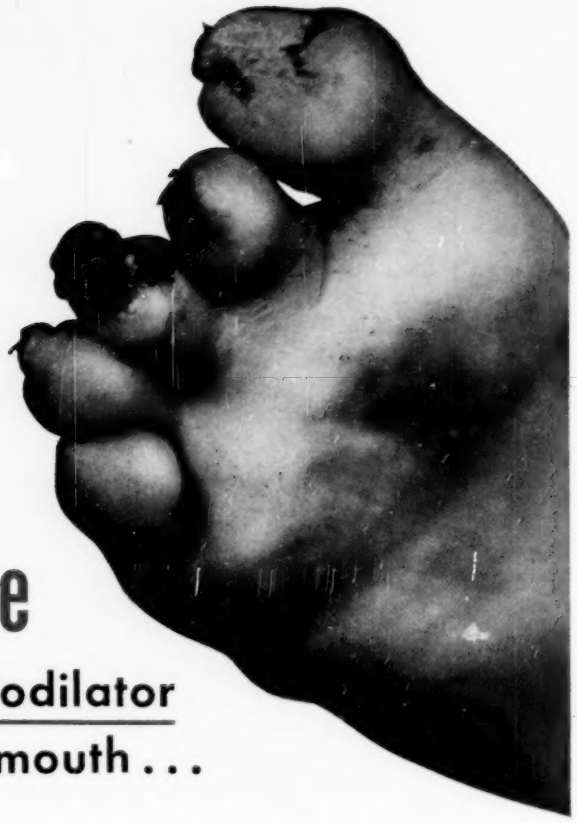

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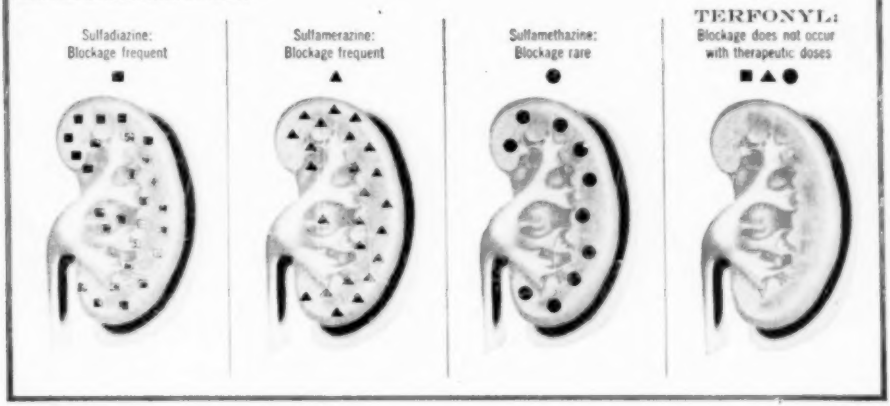

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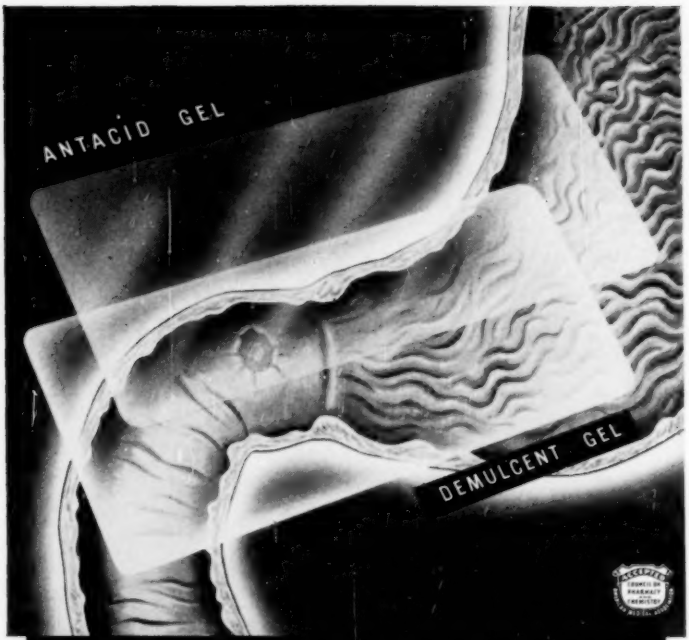

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JOURNAL
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Volume 25 No. 2 FRED C. ZAPFFE, Editor March, 1950

The Social Responsibilities of Medicine*

VIRGIL M. HANCHER
President, State University of Iowa
Iowa City, Iowa

The topic assigned me is "The Social Responsibilities of Medicine." It would be interesting to know whether the assignment was made with this particular day and hour in mind. The topic is a formidable one at any hour; but, at this hour of the morning, and a Monday morning at that, it seems especially formidable!

In accepting your invitation and in preparing my remarks, I have assumed that you do not expect me to speak as an expert. You have many experts in the fields of medical education and medical practice to whom you can turn for profound and pertinent advice on many points. Had you desired, you might have turned to one of them for this portion of the morning's program, as you have turned to them for the portions which are to follow. I suspect, therefore, that if I have any qualifications for the particular task assigned me, they arise from the facts that for sixteen years I was actively engaged in the practice of a profession and in consequence may be assumed to know something of the professional man's point of view; that I was a member of a profession which has been the victim of much public misunderstanding and which during a part of my professional career, along with bankers, investment bankers and brokers, was under particularly violent public and political attack; and that for the last nine years I have been a layman greatly concerned with problems of medical education and with the relations of the profession and its individual members to the society which they serve; and, as such a layman, have been forced to the conviction that the most urgent and important of all the responsibilities of medicine is its responsibility to see that it is understood by the vast body of men and women who constitute that vague thing called "the public."

One of the things that the public appears to believe is that there is an acute shortage of doctors and an undersupply of medical service, especially in the rural areas. For the moment, I am not concerned with the truth or falsity of the statement. I am concerned with the fact that the belief exists.

*Read at the Sixtieth Annual Meeting of the Association of American Medical Colleges, held in Colorado Springs, Colorado, November 7, 8, 9, 1949.

And if the belief exists, and continues to exist, even though it be false, you and I will see action predicated on it. For that reason, it is vital to the future of the medical profession that it have available to its use the facts concerning the profession and its services to the public; and that it tell its story so clearly and understandably that no unwise action will be taken to undermine the strength and standing of your profession.

Medicine is a great profession. It has a magnificent story to tell. But I have been increasingly concerned to note that the literature and the addresses which come to my attention are preoccupied with the fallacies of socialized medicine and the horrors of Communism, as though they had anything whatever to do with an alleged shortage of doctors or an undersupply of medical service.

Let me make my own position clear. It is my conviction that no profession, and this is particularly difficult in your profession, during an equal period, in the long history of mankind, has made so much constructive progress or has contributed so greatly to human welfare as your profession has done in the past one hundred years. I do not wish to see that progress impeded or that contribution diminished. I do not wish to see your profession become a ward of the state, or dominated or controlled by it. Yet I fear that just that will come to pass if, for any extended period of time, the public has the conviction that there is a real shortage of doctors and an undersupply of medical service, and that the medical profession is not doing all in its power, in conjunction with all forward looking citizens, to see that the shortage is met and the need is supplied. And that public will not be appeased merely by pointing an accusing finger at socialized medicine. It is well to remember, as I can from vivid first hand experience, that in the early 1930's, a period which now seems long ago, the public was not too concerned about maintaining the incomes of lawyers or bankers or investment bankers or brokers, nor was it concerned that their individual initiative might be curbed by the Federal Securities Act, the Securities Exchange Act and many another piece of New Deal legislation. When the storm of public disapproval broke, no man in those callings could be heard, and even honest, lawful transactions were distorted into insidious ones in the public mind. As I pointed out to the medical profession of my own state six and one-half years ago, in an address printed in their Journal in July, 1943, the time to be heard, the time to put one's house in order, is before the storm breaks. I come to you, therefore, as a friend, deeply concerned about what seems to me to be a rising tide of criticism against your profession, which tends to ignore and obscure its magnificent achievements.

What is the responsibility of the profession in such a situation? Surely, it has the responsibility of seeing clearly the major trends of the times, of convincing the public that it sees them clearly, and of demonstrating its readiness to take a responsible part in the solution of great social problems.

That we have witnessed major changes in our thinking during the last two decades is clear from the consideration of two trends which may have

far reaching implications. The first has to do with the farm problem, the second with labor.

Beginning with the year 1920, this country was confronted with a serious farm problem which reached its most acute stage in the early 1930's. During the years 1932, 1933 and 1934, the prices of farm products reached an all time low. The farmer knew that the productivity of his land was as great as ever. The quality of the products produced was as high as ever. Yet, because of maladjustment in the economic system, corn and oats and butter and eggs, which normally would command a price sufficient to sustain the farm family, were selling at a few cents a bushel or a few cents a pound or a few cents a dozen, in brief, at prices which were bankrupting the producer. Here the individual farmer found himself face to face with an economic situation which he had not created, for which he was not prepared, and with which he could not cope. I am not at all certain how conscious the farmer was of his resolution to see this situation corrected, but it is apparent that during his years of trouble he came to the conclusion that the economic crisis which he faced was one which he would never willingly face alone again. He adopted as his guiding principle the fact that hereafter this risk which he had faced alone must be shared. He embraced the principle of the shared risk; and for the past fifteen years, we have seen successive efforts toward the establishment and maintenance of a farm policy which will enable the farmer to produce his crops and livestock with the assurance that he will receive at least a minimum return for his efforts.

Now, let us look at the industrial side of the picture. From 1929 to 1933, we suffered an acute industrial crisis. Millions of men desirous of work could not find jobs. They had been hard working; they had saved their money; they had obeyed every injunction in Benjamin Franklin's copy book for success. Their savings were completely exhausted; their bank accounts were closed out; their insurance policies were surrendered and the cash surrender values were expended, and, finally, they had no further resources to which to turn. Strong men, willing to work, found themselves the recipients of charity and then of governmentally organized relief. Here, again, I am not certain that they were conscious of any formal resolution or that they took any pledge of united action; but, consciously or subconsciously, they evidently decided that they would never again willingly see themselves in the position where they might face alone the consequences of an economic maladjustment for which they personally were not responsible. They adopted the principle of the shared risk; and, out of their resolve, we have seen the growth of unemployment insurance and the manifold aspects of a social security program.

Now whether we like these measures or not, it seems probable that for a generation, at least, we shall find farm leaders and labor leaders thinking in terms of the shared risk. And it seems equally probable that any political party which closes its eyes to these attitudes will lose the support of the farmer and the laborer. Those are facts which must be faced as facts.

It is unnecessary to remind you that the problems of medical service and

its distribution are attracting increasing attention from politicians and political parties. Undoubtedly, this development arises from a stirring among the people, whether it be wise or unwise, not unlike that which has brought about extensive measures of argicultural support and social security. The average family income in this country was $3,320 a year in 1947 and it runs about this rate every year. The average family consists of 3.64 persons. This means that the vast majority of families, even in this rich land, lives on a very narrow margin. You have seen with your own eyes what a protracted illness, requiring long hospitalization and general and specialized medical attention, can do to the family resources. It can destroy the best laid plans. It can become an economic catastrophe of the first order. It can come without warning or apparent cause. No virtue, no observance of the copy-book rules can ward it off. It can fall upon the just as easily as upon the unjust. Here too there are signs on the horizon, perhaps no larger than a man's hand, indicating that these extraordinary catastrophes should be subject to the principle of the shared risk. It may be within the power of your profession to determine whether that risk should be shared on a voluntary or compulsory basis, but surely the profession cannot escape the necessity of standing up to be counted on the side of those who are sympathetically concerned with the economic catastrophe created in families in the lower income groups by the long, destructive and costly illness.

Would it not be wise, therefore, for the medical profession to show that it stands at the very forefront of our society in apprehending the nature of these social movements and in seeking solutions to the problems out of which they arise? In all candor, the medical profession, so far, has not created the impression in the public mind that it stands in the forefront in these matters.

So far I have not dwelt upon the duties of the doctor in his role as a citizen, nor do I deem it necessary to do so. To be sure, he should be a good citizen; he should vote at elections; he should take an interest in candidates for public office; he should be concerned with city or village planning in the community in which he resides; he should pay his taxes, both state and federal; and he should do all of those manifold things which, in a democratic society, we believe that good citizens should do. And those of us outside the profession should recognize, too, that the rigors of their profession and the arduousness of their duties have often made participation in civic affairs a greater sacrifice for doctors than for members of other professions or of business and industrial persons. The business of the manufacturer is often so organized that it may operate at a high level of efficiency during long periods of absence. On the other hand, the doctor has only his time and skill to offer. Time lost from his practice means a direct loss of service to patients and of income to himself. He must adhere to an exacting schedule, a schedule often made for him by his patients' needs rather than his own desires. In short, nothing should be allowed to outweigh the fact that the doctor should be competent to deal with illness and disease. Competence as a citizen will not condone incompetence in the practice of the profession. Carelessness in the diagnosis of an illness or in prescribing the therapy for it cannot be

offset by punctuality at the ballot box or faithful service for the Community Chest or on the City Council. It is a special function of the doctor to prevent illness and to cure disease, and the responsibility which society expects him to accept and perform, above and beyond all others, is the utilization of his talents to the maximum in the prevention of illness and the cure of disease.

In this connection, the profession should be certain—and should be able to convince others of its certainty—that it is using those voluntary arrangements and relationships in the practice of medicine which are best suited to the convenience and benefit of the patients. Has this been done? Historically, the practice of medicine has been individualistic, often necessarily so. But is this individualistic practice realistic in terms of modern medical knowledge? One understands, of course, that the doctor-patient relationship is a relationship of the highest trust and confidence. No one would wish to destroy that relationship. But the highest trust and confidence can only be deserved so long as the individualistic relation does not stand in the way of the best patient care—and this includes consideration of the time, convenience and comfort of the patient, as well as the skill of the doctor. Is an extreme emphasis on individual practice realistic when medicine has grown to its present level of complexity and when it will continue to grow more and more complex? Have the possibilities of closer association among doctors been fully explored? Of course association has its disadvantages as well as its advantages. There is always potential liability for the wrongs and malpractice of an associate, and perhaps, the law of malpractice itself may be unrealistic and may require review and amendment. But is there any alternative to increasing group association in a profession in which the field of knowledge is so vast that the individual practitioner can know only fragments of the whole?

The great law partnerships in the cities began to develop more than a century ago. To be sure, there are individual general practitioners, and they are an essential part of the profession, but no lawyer can be informed on all of the latest developments in real estate law, probate law, state inheritance and federal estate taxes, federal and state income taxes, federal and state excise taxes, labor law, wage and hour laws, and the rules and regulations of the many administrative boards and tribunals. Surely, medicine is as complex as law! And its complete mastery requires an even higher degree of specialization than does the law.

If one man cannot master the whole field of medicine, what arrangements must be made to convince the patient that his best interests are the concern of the profession? Is not an increasing amount of practice in association of some kind the only answer? Associated specialists and general practitioners, offering complete or nearly complete medical service, appear to be the only means of giving the laymen maximum service at a reasonable cost in time and money. Moreover, by staggering night, Sunday and holiday service, could they not allay the growing public anxiety over the decline of such service without placing an unwarranted burden on any practitioner? They might also extend their services to communities without doctors or too small to afford or

to attract doctors to communities adjacent to them by providing for office service in such communities on one or more specified days or half days in each week. Moreover, group association very possibly would be of particular interest to medical educators because of the possibilities it offers for the recruitment of staff for clinical teaching.

There is another area of responsibility related particularly to the work of this Association and its member schools and colleges. As I said before, there is widespread belief that there is a shortage of doctors and an undersupply of medical service in this country. At the same time, there is a lack of generally acceptable figures on which all parties can agree in determining what needs must be met and the methods which might be adopted for meeting them.

It was apparent, from time to time, during the war, and the situation has not yet been corrected, that this nation has never had any adequate long range evaluation of the manpower required for its several professions and callings. It may be doubted whether in an ideal situation this should be done by the several professions themselves, lest they unwittingly resolve all doubtful questions in their own favor. But we do not live in an ideal situation. In its absence, I suggest that this Association might consider a continuous study of medical manpower needs as one of its major services to the profession. This study could, of course, have many facets.

I realize that other agencies have been suggested for such a study; and it might well be beyond the financial and personnel resources of this Association to collect the basic data concerning the supply of medical doctors and students, but some agency—and I see no agency better suited for the task—must undertake to interpret the data, to point out their inadequacies, and to determine their signficance.

All of us are concerned to know whether the alleged shortage of doctors and undersupply of medical service is real or fancied. What is a reasonable standard of medical service and supply by which the alleged shortage is to be measured? Are we to judge it in comparison with the supply heretofore available or are we to measure it by the demands of those who need medical care and do not receive it?

If it is alleged that there is a shortage in comparison with prior years or prior decades, I would ask whether medical service is really less accessible and satisfactory than it was a half century ago or whether the seeming shortage arises from neuroses and preoccupation with illness or the impatient demand for instantaneous bedside service which has developed with the arrival of more rapid means of communication. In terms of accessibility (with the aid of telephones, automobiles and paved highways) is any appreciable percentage of our present population more remote in time from a doctor than were the persons living in the same locality in 1899, or in 1919, or in 1929? In other words, is this shortage real or is it, in part, a problem created by changing demands, and, perhaps, unreasonable demands being made on the profession?

In 1899, my grandfather lived on a farm five miles northwest of the town

of Rolfe, Iowa. His only means of communication with the town was by team and carriage over dirt roads. He had no telephone. If a member of his family became ill, his alternatives were to harness a team to a buggy and drive five miles to town, notify the doctor of the illness and have the doctor drive to the farm or, if the patient were able to travel, to take the patient to town to see the doctor, knowing that the doctor might be in the country beyond the town or elsewhere beyond reach for an indefinite period of time. In the time that was then consumed in getting a doctor to the patient or the patient to the doctor, it would be possible now for a person living on the same spot to have a doctor from Fort Dodge, 45 miles away, or to take the patient to the hospital at Fort Dodge, 45 miles away. Our superior media of communication and transportation should have reduced our fears, anxieties and impatience, yet they appear to be increasing. How can they be held in check?

Is it possible for you to dramatize these facts and call them to public attention? Can you not help communities to understand the problems they face in attracting and holding medical practitioners? Can you not bring before your students the needs of the communities, and the means, through associated practice and staggered and dispersed community service, by which the needs can be met? What agency is better equipped than this Association to interpret our need for doctors and medical service in the light of improvements in preventive medicine, of changing procedures in the care of aged and chronic patients, of the increase in office practice and the diminution of home calls, of the increasing tendency toward hospitalization, of the improvements in nursing services and in the supplementary procedures and techniques which bear on the number of physicians and surgeons required to carry the total load, and to formulate programs in the social and economic aspects of medicine which will equip future doctors to understand the changing society of which they are a part and the role which their profession must play in that society?

There is another responsibility which the medical profession owes to society, and which is a greater responsibility of this Association and its constituent members than of any other segment of the medical profession. It is the responsibility of seeing that the costs of medical education are kept fair and reasonable. No other group can do that as expertly as this Association and its constituent members can do it. And there are urgent reasons, as this audience well knows, why there should be continuous study and review by this body of the costs of medical education.

All reasonable men wish the quality of medical education to be maintained at the highest level. They wish the schools and colleges of medicine to have every dollar necessary to maintain medical education at that level, but not all reasonable men are convinced that the costs of medical education need be as high as they are. Moreover, there are reasonable men who believe that medical education cannot go on increasing its per capita costs without clear and convincing proof that the procedures being used are the most efficient, effective and economical procedures available for achieving the desired standard.

Are the deans and staffs of the schools of medicine thinking about the future in realistic terms?

Assume a school of 300 students with an annual per capita cost of $4,000 and tuition of $1,000. These are not intended to be realistic figures. The endowment required to meet the costs in excess of tuition would be in the order of $24,000,000 to $30,000,000. Few universities in this country have a total endowment equal to that figure. With per capita annual costs reduced to $3,000, an endowment in the order of $16,000,000 to $18,000,000 would be required. Does anyone in this meeting believe that such endowments are in prospect? Are you even certain that the present sources of funds will continue unabated? How long will medical education and research enjoy their present high favor with the principal sources of private giving? What will happen if engineering, or physics, or international law should replace medical education and research as a favorite object of benefactions?

It is no answer to say that medical schools need the money or that they are doing an excellent job. What dean in what college does not need more money? And what dean in what college could not do an excellent job—in engineering, dentistry, pharmacy or law—if he had the per capita sum available to the college of medicine in his university? May not the time come, and come soon, when medical schools will be called on to prove their costs in greater detail to the public than they have ever done heretofore?

Perhaps, among other things, we need to define what we mean by the cost of medical education. What do the figures mean? Does the higher cost in certain schools mean that they are actually giving the students a better education? If School A has a per capita cost of $3,800 a year and School B has a per capita cost of $1,800, does it follow that School A is spending $2,000 more each year in educating each student? Where does the money go? What proof has School A that its graduates, after a year of internship, are better qualified for general practice than are the graduates of School B? Is the extra $2,000 per capita applied to undergraduate medical education? Or, is it chargeable to research? Or, is it chargeable to the training of specialists?

Does this Association have the data from which these questions can be answered for the whole field of medical education? If not, should it not have the data? If the budget of every school in this Association were cut 25 per cent, how many schools would need to lower their standards of undergraduate teaching appreciably? Or lower their standards of resident training and graduate education? Or lower their standards of research? Where would the reduction occur? Have we exhausted every pedagogical possibility for giving better education at the same or lessened cost? What will we do if private donors and public bodies fail to provide more funds?

I realize that this Association has a survey under way which will deal with many of these questions, but, as of this date and for the indefinite future, the sixty-four dollar question before you is this:

Is the high cost of medical education necessary and can you prove it?

The medical profession in general and this Association in particular have a great responsibility to society for a correct answer to both parts of that question. The future of medical education may well rest on the kind and quality of the answers which you give.

It may be that the tasks which I have proposed are beyond the resources of this Association and its members, but obviously they are not tasks for laymen, and in the profession or in the government there is no group from which the public might expect and receive a more high minded desire to promote the general welfare. It is clear that the public expects affirmative action from the medical profession, and it expects and should have from the profession and its members a clearer understanding of its program and its problems. This is the task of the individual doctor and of the profession, through its associations and agencies, of which this is one.

Once I was taught that this is a sound rule of public speaking: When you begin your talk, tell your audience what you propose to do; when you are under way, tell them that you are doing what you proposed to do; and, when you are concluding, tell them that you have done what you proposed to do. Doctors might well follow the rule just stated. They have never been garrulous in their dealings with their patients or the public. Hence, there is much mystery and misunderstanding about the possibilities and the limitations of the art and science of medicine. Medicine has a wonderful story to tell. At the risk of being garrulous, doctors should tell the story, and should tell it again and again.

There is a rising tide of criticism against the medical profession. Far too high a proportion of that criticism is ill founded and is based on ignorance and misunderstanding. Some of it has been based on the unwise attitudes and practices of certain general practitioners and certain specialists in the profession. It will be difficult, if not impossible, for the laymen to understand these problems and to bring them to solution without the leadership of the medical profession.

The tremendous advances which medicine has made in the last century and the magnificent story which medicine has to tell of its expanded services to the American people are so great that we should not risk damage to the medical profession by unwise legislation in these latter days.

The most important thing which doctors can do for American society, and a responsibility above all others which I believe they must bear, is to continue the rapid development which the profession has experienced in the past century; to bring its services understandably to the attention of the American people, and to see that doctor and patient and patient and doctor work together in sympathy and understanding for the solution of our common problems.

Education in Diseases of the Chest*

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We, who live in this closing year of the first half of the Twentieth Century, find ourselves as a part of an amazing transition phase in history. We have been the witnesses of tremendous human tragedy and suffering—the actual and potential, beneficiaries of incredible scientific progress. On those of us in this country, who have escaped the full impact of calamity, there has developed the responsibility of world educational leadership in medicine and the health sciences, as they inevitably assume an increasingly vital role in every phase of present day life. Our job is to repair the damage done, not to buildings, but to people. To do this means more and better trained young physicians; physicians who will have received from their more mature associates the stimulus of the example of special proficiency in some particular phase of the psychosomatic response of the individual to his environment, while not losing sight of the whole individual in his entire environment.

This concept is leading gradually in this period of world readjustment and change to an encouraging shifting of some of the emphases in medical education. Change is neither new, nor, as such, fearsome, to those who have survived two world wars and two periods of economic strain and political stress, and who have had the vision to see the new perspectives and the wider human horizons, which these experiences have only served to bring into sharper focus. Changing conditions do not present an occasion to relax, or to look backward with regret, but rather do they bring a challenge to new creative thinking and work—work that will help to renew confidence, regenerate enthusiasm, and inspire and invite cooperative endeavor in the further development of the art and science of medicine, even when in other areas understanding and cooperation seem far from realization or accomplishment.

The older idea of medical specialization with patient isolation, which was originally the direct offspring either of fear, as in the case of contagious diseases, or of superstition and loathing in the case of mental disease, has been almost entirely displaced at the present time. The geographic isolation and segregation of any considerable body of patients means both the physical and mental isolation of their attendants, including the physician whose mental vitality and professional growth are directly dependent on and proportional to the cross fertilization of ideas which can come only from constant daily contact with fellow physicians with protean interests and diverse ideas. The stimulation of student participation in the study of disease is also denied under such circumstances. The families of patients, too, resent both the con-

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spicuousness of isolation and the social stigma which sometimes go with disease segregation.

As a result of these and, perhaps, other motivating causes, the current ideal of an all inclusive Medical Health Center has evolved, with learning and teaching as its very heart. In such a single, geographically centered location, preferably a university campus, are ideally grouped the representatives of every health promoting and disease prevention and rehabilitation agency in the community, organized to serve man's mental and physical health needs from birth to old age. Here the ultimate and precise medical diagnosis and the best in specific medical therapy may be practiced, side by side with the teaching and research on which such ideal patient care must be predicated.

Education in diseases of the chest is a case in point. Eight years ago E. W. Hayes, then chairman of the Committee on Undergraduate Education in Medical Schools of the American College of Chest Physicians, presented a plea before that Association for the more effective teaching of tuberculosis.[1] Tuberculosis from the beginning of human history has presented so great and so resistant and persistent a problem for both man and his domesticated animals, that it has received very special and intensive study and treatment in special sanatoria and research institutions the world over. National and international organizations, private and governmental, have mobilized their financial resources and directed their highly specialized professional talent against this great white plague of the human and animal species. As a direct result of the information which has been acquired, and its application, the incidence and mortality of this disease have been reduced significantly in man, and the disease has been eliminated in cattle in many sections of the world. The intensive application of our current knowledge, including effective prevention, and the successful medical or surgical arrest of current cases of tuberculosis could, in the opinion of Surgeon General Scheele of the United States Public Health Service, as expressed publicly last week, give us almost complete control of this endemic disease in this country within another decade. To bring this dramatic conclusion to one chapter in the hitherto tragic volume of human disease, and to keep it closed, it devolves on us in the medical schools, today more than ever before, to see to it that our students fully grasp the volume, variety and significance of the information on which this progress has been and is being made, and that they accept full personal professional responsibility for carrying out the public health, epidemiologic and individual patient therapy aspects in the community control of tuberculosis.

To those of us who also share the responsibility for nursing education, the instruction and clinical experience in tuberculosis and chest diseases for student nurses is equally unsatisfactory. The National League of Nursing Education Committee on Curriculum published this last July its new International Plan for Basic Tuberculosis Nursing, "an imaginative attack upon one of the most difficult problems associated with tuberculosis control."[2]

Divided into eight units, it recommends from 45 to 60 hours of basic instruction for nurses with from 180 to 240 hours of practice. Only in a medical center with full clinical facilities, including tuberculosis beds, or in an unusually comprehensive affiliation between nursing school and sanatorium can this important ideal be approached.

Time was when tuberculosis, acute and chronic, shared with bronchial and lobar pneumonia and their empyemic complications, the almost exclutive interest and concern of the physician when physical signs and symptoms drew his attention to the chest. Differential diagnosis was not too obscure or difficult because far advanced disease usually existed before the patient sought medical advice. Today this is not the case. Minimal symptoms and signs receive earlier attention and may reflect a considerably wider range of possible etiologies. Industrial irritants (silicosis, et al.), a growing appreciation of the allergic states, bronchiectasis, the production with or without healing by fibrosis and calcification of pulmonary lesions due to other than acid fast organisms (histoplasmosis and other fungi), the steadily increasing incidence of primary bronchogenic carcinoma, seeming to parallel the great increase in tobacco smoking, as well as the frequency of secondary pulmonary metastases in the later decades of life—all make the study of the differential diagnosis and treatment of diseases involving the chest a major consideration of every medical student, and of every practicing physician, be he general practitioner, internist, surgeon or specialist. Any organ may reflect tuberculous disease; no disease but that may be reflected by signs in the chest, are, perhaps, the only two safe corollaries for the conscientious, alert diagnostician today.

There is no school represented here today which does not lay more or less emphasis on the teaching of chronic diseases of the chest, as revealed in the survey by the Committee on Undergraduate Medical Education of the American Trudeau Society under the Chairmanship of Dr. Robert G. Bloch of the University of Chicago in 1945-1946.[3] The circumstances are so varied, however, and the conditions under which we must each apply our equally high curricular standards are, of necessity, so different, that if there is agreement on and acceptance of certain common principles, the fact that the ways and means of attaining these desired ends will vary with each institution in time, place, course and hour detail, need not cause special concern.

Can we agree, then, on any common objectives? Perhaps, an attempt should be made to redefine some of these teaching ideals. Just as tuberculous disease is now a decreasingly frequent cause of pulmonary pathology, in both relative and absolute incidence, and must, therefore, be increasingly frequently differentiated from other diseases arising within the chest, so, now, many disseminated medical diseases may be reflected by secondary pulmonary complications. A physician broadly trained in internal medicine, but with a special curiosity as to basic pulmonary physiology and the biochemistry of respiratory gaseous exchange with its influence on cardiac hemodynamics, should be the teacher who leads his students into a basic understanding of

those sequences of clinical events, which can follow a wide variety of disturbances in this particular homeostatic equilibrium. He must be a dynamic enthusiast for his subject, with an insatiable scientific curiosity. The teacher should himself be an investigator in his special field in close touch with the basic sciences and with an eternal discontent in the status quo of current knowledge; the internist will regard thoracic surgery as physiology in action, and the teacher of thoracic surgery will think physiologically; the clinical investigator-teacher will be more certain, if on a full time basis, to take the necessary personal time with student and patient, without which teacher devotion and interest, any teaching plan or program will fail. He should be a humanitarian with an interest in the mental and emotional reactions of his patients as well as their purely physical problems, particularly emphasized by the studies of Dr. G. Canby Robinson. He should not be a physician forced into or drafted for the teaching of this subject as a reluctant alternative to the further pursuit of a primary interest in another major field. A variety of technical approaches from adjacent fields, with consultants highly skilled in both their application and interpretation, should be readily available when needed, but critical judgment as to when such help is essential to the best interests of the patient, should be learned and demonstrated. Thus, patients with every type and degree of pulmonary involvement, including nontuberculous as well as tuberculous disease, must be at hand in every teaching center, if medical students and resident staff are to profit most by their contact with the senior attending staff men in all of their basic science and clinical specialty proficiencies. Horizontal as well as vertical teaching integration is imperative, with, perhaps, a specially designated coordinator, as is being done in cancer teaching today.

Psychologically, we have been conditioned as students to search for the one cause sufficient to explain all clinical symptoms in any given patient at any given time, and as physicians and specialists we tend to accept as the sole cause of every complaint thereafter, either a somatic or psychic relationship to whatever major diagnosis has previously been established. It is only, therefore, where a constant review of all possible complicating factors in complex human disease syndromes is not only easy but unavoidable, that many patients are rescued from the actual dangers of a so-called definitive diagnosis. In a medical teaching center, versus an isolated sanatorium, surgical, obstetrical, psychiatric, hematologic, nutritional, X-ray, medical social service, occupational rehabilitation, and every other potentially necessary consultation is immediately available to the tuberculous patient, who, today as never before, may look forward with reasonable expectancy to arrestment of his disease, and, barring complications, to an early return to social and economic independence without endangering family or friends. To the nation wide mass, PPD tuberculin test, chest X-ray case finding surveys of the past five years have been added the unprecedented developments in the surgical, chemotherapeutic and antibiotic treatment of all diseases involving the lungs to accomplish this medical triumph.

A full scale, carefully controlled study and evaluation of BCG vaccination in highly exposed populations has been under way for some years, correlated through the World Health organization, but the subcommittee on immunology of the Committee on Medical Research and Therapy of the American Trudeau Society, has recently reiterated the position it took in January, 1948, viz., that "the degree of protection reported following vaccination is by no means complete nor is the duration of induced relative immunity permanent or predictable." This is of particular importance to student physicians and nurses who must recognize promptly and observe well the established aseptic precautions in caring for "open cases" of tuberculois. Today's social menace is the unrecognized case. The dangers of contagion, where the disease is known, can be made minimal.

While a liaison between certain of our medical schools and more or less distantly located tuberculosis sanatoria has been the principal basis for most undergraduate teaching programs in the past, and this arrangement has proven satisfactory, or not, depending on the genuineness of the enthusiasm and interest of the respective cooperating medical personnel, the very definite tendency at the present time is either to designate in the general teaching hospital not less than 10 per cent of the beds for study of chest diseases, including tuberculosis, or to establish a special unit for the teaching and study of chest diseases as an integral part of the medical teaching center. Dr. John B. Barnwell, Tuberculosis Division of the Veteran's Administration, reported at the conference of deans and teachers of chest diseases, called and sponsored by the National Tuberculosis Association in New York last April, that there are "very few university hospitals with any kind of facility whatever for teaching tuberculosis. Three or four beds may be devoted to thoracic surgery, and that is the story. It is one thing to tell students that it is a part of internal medicine and then to find an enormous hospital without a recognized case of tuberculosis in it. Since I have been in the Veterans Administration, there have been three instances of a teaching center refusing to accept a tuberculosis hospital which would be within easy reach of its medical school. As a part of the Veterans Administration, there are 22 hospitals with tuberculosis services which might be used for the teaching of undergraduate students." At the same conference, Dr. Burgess Gordon reported that of 90 beds for chronic pulmonary diseases in the Barton Memorial Division at Jefferson Medical College, one-third are for the study and treatment of tuberculosis. At Howard University, 150 beds in a 500 bed institution are used for the medical and surgical management of tuberculosis, according to Dr. Joseph L. Johnson. Dr. Ezra Bridge described the mutual stimulation and enthusiasm which students and faculty and the tuberculosis staff have developed between the University of Rochester with its isolation ward open to tuberculous patients and the Iola Sanatorium only one mile distant. Dr. Kirby S. Howlett, Jr., President of the American Trudeau Society, cites the "extremely advantageous" teaching relationship which Yale Medical School has maintained in recent years with the Laurel Heights Sanatorium at Shelton,

Connecticut. Edlin, Bussin and Thompson have recently presented the details of the cooperative undergraduate and graduate teaching program in diseases of the chest between New York Medical College and the Municipal Tuberculosis Sanatorium at Otisville, N. Y., set up as an elective originally, but now as a required correlation with all other medical subjects. They believe that such familiarity will breed not contempt, but knowledge of and respect for a disease that thrives on ignorance.[4]

Dr. J. Burns Amberson of Columbia University-Bellevue Hospital, in summarizing the New York Conference, made these interesting observations, among other statements: "Some allusion was made to getting politics out of tuberculosis, which might imply that you want to get government out of the practice of medicine in this field. That I do not think is feasible. So the alternative is to get politics to work for you. That is a more practical course to pursue. Here is a public health problem affecting the community. The medical school should integrate its work with that of the authorities and public health people on all fronts. The medical schools should assume their responsibility to guide that program. Much will depend on the local situation. At Bellevue Hospital the College of Physicians and Surgeons of Columbia University has maintained an excellent relationship for more than 75 years. There is no written contract but it has gone on reasonably happily with mutual appreciation of what has been done, and I think that might and should be cultivated in various communities."

This is much the feeling and attitude we have had at the Ohio State University for some time. Proceeding, therefore, on this premise, we have negotiated a contract with the State Department of Health, attested and legally certified in an official opinion by the Attorney General of the State, which makes provision for the construction and maintenance of a 300 bed hospital on the Ohio State University campus—as an integral part of the medical teaching center—for the diagnosis, treatment, investigation and teaching of diseases involving the chest, with special reference to tuberculosis. Three services of 100 beds each, viz. medical, surgical and investigative, with a full time medical director of each, and three corresponding specialty-residency training programs, have been agreed on. The necessary legislative approval was obtained and an appropriation of $3,000,000 for construction, exclusive of equipment, was made two years ago. This unit is in direct and immediate physical connection with the new 600 bed University Hospital for teaching and investigation in general medicine and surgery, and with a third unit, a 200 bed neuro-psychiatric receiving hospital, authorized in a similar contract with, and financed under the State Department of Public Welfare, as part of the state's mental disease program. A Dental Clinic building is nearing completion at this time in the campus medical center area, and a laboratory unit for the Institute for Research in Vision, a joint undertaking by the Departments of Optometry, Physics, Ophthalmology and the Graduate School of the University has just been started. A new, pure research laboratory unit will be started as soon as plans are completed. A

new medical and biological science library wing and commensurate expansion in the basic science preclinical laboratories, concurrently being accomplished, will permit of better teaching for more medical, dental and nursing students at the undergraduate as well as the postgraduate levels. Thus, we shall have in full functional operation a year from now, 300 tuberculosis and chronic chest disease beds among a total of 1,100 new teaching and research beds, the result of a deliberately planned, integrated medical teaching program for the State University in Ohio. The Dean of the College of Medicine is the Director-Coordinator for teaching and research for the entire Center, with a top Administrator to assist in the complete financial and functional coordination of all units. All business as well as professional personnel in each cooperating unit must be recommended and approved by the Dean acting for the University. The attending physicians are University selected and receive academic appointments and rank corresponding to their training, and the teaching and research responsibilities assumed. All food is received by, prepared in, and dispensed from the main hospital kitchens, and the medical personnel of all units have a common dining room in the main hospital, for ease of personal communication and constant daily contact. Central purchasing and supply and central laundry and public utilities are University services to all units in the Medical Center, these costs being prorated. The intern and resident staffs are appointed by the respective heads of the medical school departments and rotate through services in all hospitals, except where chief residencies are concerned in the respective specialties. The School of Nursing will have full educational privileges for the broader practical instruction of student nurses and for the expansion of postgraduate specialty training in tuberculosis, neuropsychiatric and public health nursing.

There has been remarkably complete agreement between the medical and administrative leadership in the University and two governors and their changing cabinet officers, from two different parties during three biennia, in which legislative membership in both House and Senate changed almost completely following the last election, precipitating a complete shift in majority party leadership. There has been generated a common pride of accomplishment in the field of education for health, which was created and is being maintained with a minimum of political, economic, racial, religious and professional bias. For once, at least, and for the first time in our state, an efficient and effective combining of objectives and resources in an intelligent, cooperative effort is being consummated by three different agencies of the State, the better to accomplish the mutually desirable purposes each is charged to perform, without, at the same time, abrogating any individual departmental responsibilities or prerogatives. The University has contributed of its land grant property dedicated solely to democratic educational objectives; it has guaranteed the highest professional and technical personnel not only at the medical and nursing levels, but on those broad basic natural science, humanities and social science levels, which only ten colleges and a graduate school on one University campus can guarantee to a health program

which requires constantly new tools from every such facility. And, in return, the State Departments of Health and Public Welfare have designated as appropriate educational and research units, a portion of their hospital responsibilities to the tuberculous and mentally ill of the State.

In summary, the care, the study and the teaching of tuberculous disease today should be the responsibility of the broadly trained medical internist-investigator in close association with the highly proficient, experienced chest surgeon as part of the larger problem of the better understanding and control of all cardiopulmonary diseases involving the chest. Such an all inclusive chest service should be an integral part of every large general hospital and medical teaching center, in the best interests of patients, physicians, undergraduate medical students and resident staff. This means medical center segregation in the future, rather than sanatorium isolation as in the past, with the tuberculous patient receiving equal acceptance and complete attention, including prompt recognition and specific treatment of his non-tuberculous complications which often threaten his existence more seriously than does the tuberculosis itself. Geographic propinquity is desirable, but a closer functional relationship between existing tuberculosis sanatoria and adjacent medical schools may achieve similar results when the respective governing boards and professional personnel accept and implement the principles which have just been re-emphasized. Such provision for education in diseases of the chest we believe to be a desirable, ethical and economically sound objective for every school of medicine, and wholly in keeping with the research and educational trends and the patient care needs and demands of these highly significant transition years.

BIBLIOGRAPHY

1. Hayes, E. W.: The Teaching of Tuberculosis. J. A. Am. M. Coll. (July), 1942.
2. Editorial. Education for Tuberculosis Nursing. Pub. Health Rep., 64; 1247 (Oct. 7), 1949.
3. Report of Committee on Undergraduate Medical Education. Am. Rev. Tuberc. 54; 456, 1946.
4. Edlin, J. S. Bussin, S. and Thompson, S. A. Undergraduate and Postgraduate Teaching in Diseases of the Chest. Dis. of Chest, 15; 507 (May), 1949.

DISCUSSION

DR. ESMOND R. LONG, American Trudeau Society, Philadelphia: The decrease in frequency of tuberculosis as a cause of pulmonary pathology, mentioned by Dr. Doan, is real, but if mass X-ray surveys furnish a suitable criterion, it is not proportionate to the decrease in the death rate. It is certainly true, as he points out, that the need for accurate diagnosis of chest lesions is as great as ever. His emphasis on the inclusion of instruction on chest diseases within the framework of internal medicine is timely, for a common argument is whether clinical tuberculosis should be taught as a specialty or as a subject in internal medicine. The answer is, as Dr. Doan has indicated, that it should be well integrated with the general work of a medical center and included among the numerous chronic pulmonary diseases covered in internal medicine. In this connection, it may be pointed out that the public health aspects of tuberculosis teaching also should be thoroughly taught. The prevention of tuberculosis has been a neglected subject in medical schools. A procedure now being adopted in many schools, however, is emphasizing the subject as never before. This is BCG vaccination. The education involved in the vaccination and the usual follow-up, viz., tuberculin testing and chest X-ray examination, will stimulate the student's thinking. There is nothing that brings a point home so forcibly as its personal application.

DR. JAMES J. WARING, University of Colorado, Denver: To paraphrase the well known lines of Byron: Tuberculosis is of the internists' life a thing apart, 'tis the phthisiologists'

whole existence! Adequate experience in the general field of internal medicine is an indispensible foundation for the chest specialist. Time was when "chest diseases" were pretty much pneumonia and "consumption." From the viewpoint of the family physician, therapy of tuberculosis was largely climatic; from the viewpoint of the specialist in the health resort, therapy was almost exclusively "bed-rest."

Today the term "chest diseases" encompasses a formidable proportion of the illnesses the doctor is called upon to diagnose and to treat. That is all the more true if we include, as we should, the associated pulmonary complications of the cardio-vascular system.

The changing face of therapy as well as the changing complexion of tuberculous disease make a study of tuberculosis a very time consuming job. In my opinion, it is just not possible within the four years of the medical curriculum and another two years of hospital life to give or to acquire more than a general knowledge of chest diseases and a fair foundation in physical diagnosis. Six to twelve months residence in a tuberculosis sanatorium will increase the former and add a little polish to the latter.

I should like to emphasize here, as I have tried to do elsewhere, that the disease "tuberculosis of the lungs" is *the* most useful disease in the teaching of physical diagnosis and roentgenology of the chest. Here the film should be used to teach physical diagnosis through oft-repeated correlation of what is seen on the film with what is heard with the stethoscope on the chest. I share the well justified and often mentioned fear that radiology will supplant auscultation when it should assist in its perfection.

Dr. Doan's conception of an "all inclusive medical health center" in which prevention, diagnosis, treatment, nursing care, rehabilitation and social service are all taught and practiced in intimate correlation for the welfare of the patient and his family, the good of society and the instruction of the student of medicine, has my deepest admiration. I am sure he will find such a center of continuing importance in postgraduate teaching, since the doctor, the practitioner of medicine, is himself always and ever a student of medicine.

Surely such a "setting" for instruction in chest diseases is ideal. I would add a word about the man fortunate enough to have teaching responsibilities in this center. The man must be able to teach both by precept and example. He must not only have knowledge of disease; he must be, like every other good physician, abounding in sympathy and like every other good teacher, imbued with enthusiasm. He must have the divine spark! In more homely phrase, he should have "fire in his belly"! Contemplate this man in this all inclusive medical health center! What a mouse trap! Students and doctors, young and old, from far and near will beat a path to its door!

DR. G. CANBY ROBINSON, Baltimore: Pulmonary tuberculosis is the most important and prevalent infectious disease and medical students should have instruction which considers it in its broader aspects. It is a disease that is almost certain to be encountered in the practice of every physician, and it is essential that he should have an understanding of its diagnosis, management and its public health aspects. Pulmonary tuberculosis is discovered by well-established diagnostic methods which should be familiar to, and used by, all practitioners. Its management calls for skillful doctor-patient relationships, which include consideration of social and economic problems of the patient and of how the facilities provided for the treatment and isolation of tuberculosis can best be utilized. It gives insight into the problems of chronic illness. The broad study of pulmonary tuberculosis gives an opportunity for the student to participate in public health methods and to learn about the epidemiology of a communicable disease. Because of the prevalence of pulmonary tuberculosis, clinical material for its study should be available everywhere, if proper facilities in teaching institutions are provided. We should be grateful to Dr. Doan for bringing this important, and often neglected, field of medical education to our attention.

DR. ROBERT G. BLOCH, University of Chicago: Dr. Doan has pointed to many of the shortcomings in the present day teaching of pulmonary diseases in medical schools and also has suggested the remedies. Of the prevailing inadequacies in our teaching I consider two as the most important:

The first is the institutional isolation of tuberculosis from other diseases of the chest. The historical development of tuberculosis care—based chiefly on climatic considerations—has led not only to isolation of the disease but, to some extent, also of the tuberculosis specialist. The

first step in correcting this situation should be to direct our efforts in teaching toward the field of all pulmonary diseases rather than of tuberculosis only.

Such integration makes participation of general hospitals in the teaching mandatory. It will make education in pulmonary diseases part of the training in general medicine to a much greater degree than has been the case in the past, and the general hospital will emerge as the centre of teaching activities in this field as it is in any other. Tuberculosis sanatoria, which in the past have borne the chief load of instruction, will retain a limited value as educational institutions, especially if they are located in the proximity of medical schools; the clinical experience of their staff members should be utilized fully for the benefit of the students.

The second inadequacy is the lack of competent teachers. Integration of the teaching of pulmonary diseases with that of internal medicine cannot mean acceptance of the internist without special training in the field as a qualified teacher. The principle of academic teaching entitles the medical student to instruction by experts and investigators especially trained in any given field. In pulmonary diseases the general internist with a special knowledge of pulmonary diseases will be the most capable and inspiring teacher. Realizing that the success of any teaching program depends primarily upon the provision of enthusiastic and well-trained teachers, the Committee in Education of the American Trudeau Society recommended to the National Tuberculosis Association that the latter undertake as a project the granting of fellowships in medical schools for the training of teachers in internal medicine with special emphasis on pulmonary diseases.

DR. JAMES E. PERKINS, National Tuberculosis Association: Tuberculosis is a long way from being eradicated, despite the encouraging decline in the death rate and the development of new tools in the treatment and prevention of the disease. The ultimate victory will be unnecessarily delayed unless the current illusion that the battle is essentially over is dispelled.

The battle is far from over and it will be prolonged if the constant stream of medical students who are about to become practitioners are not continuously informed in their undergraduate courses of the importance of tuberculosis, and adequately trained in its early diagnosis and proper treatment. The battle will be protracted further unless an adequate number of physicians take special postgraduate training in tuberculosis and other chest diseases so as to serve as skilled teachers of medical students, to staff the facilities for the treatment of the tuberculous, and to serve as tuberculosis control officers.

There should be no fear at present nor for some time to come, that tuberculosis is so near eradication that the need for such specialized skill will disappear before the end of the lifetime of one acquiring this training.

Such training, as Dr. Doan points out, is possible only if proper facilities for the of a sufficient number of tuberculosis patients are made conveniently available to medical schools, and there is established a carefully planned course of instruction. It is to be hoped that every medical school will make arrangements for adequate instruction in diagnosis and treatment of chest diseases comparable with the program underway at Ohio State University.

Report of the Committee on Financial Aid to Medical Education*

JOSEPH C. HINSEY, Chairman
ARTHUR C. BACHMEYER, GEORGE P. BERRY, WALTER A. BLOEDORN and WARD DARLEY

The last report made by this Committee was presented at the Executive Session of the Association held on November 9, 1948, at the Greenbriar Hotel, White Sulphur Springs, West Virginia. At that time, reference was made to efforts directed along the lines of obtaining federal aid and of voluntary support for medical education. Our Committee was directed to continue along these lines. During the course of this last year, the deans of our member colleges have been circularized in regard to the current developments in both these areas of activity. We have endeavored to keep the member colleges informed, have encouraged them to write to legislatures and have refrained from taking any stand on the part of our Association as a whole. We sincerely appreciate the cooperation we have received from the members of the Association.

On December 27 and 28, 1948, the members of the Executive Council of the Association of American Medical Colleges were invited to a conference at the Federal Security Building in Washington to talk over various phases of the problems of federal aid to medical education with Federal Security Administrator Oscar Ewing, Surgeon General Leonard Scheele and members of his staff. There were present members of the Council on Medical Education and Hospitals of the American Medical Association and other invited guests from the field of medical education. At the end of this conference, a small committee (including the Chairman of this Committee) was asked to serve as an advisory committee on medical education in the drafting of legislation. Two meetings of this committee were held.

On March 29, 1949, Senator Pepper and others introduced Senate Bill 1453 and Representative Briemiller of Wisconsin introduced a companion bill known as H. R. 3894. On April 12, a letter was sent to each dean, asking reactions to six different portions of S. 1453 with a request for any additional comments. Subsequently, the famous omnibus bills, S. 1679 and H. R. 4312, were introduced. On the basis of information received from the deans of many of our medical colleges, statements were prepared by the Chairman and were subsequently approved by the Executive Council for submission to the legislative hearings in Washington. Copies of their statements were sent out to each of the deans on June 10, 1949.

On June 6th, your Association was represented by Doctors Berry, Bloedorn, Darley, Jacobsen, Smiley and Hinsey at a hearing held by a Subcommittee of the Senate Committee on Labor and Public Welfare, of which Senator

*Presented at the Sixtieth Annual Meeting of the Association of American Medical Colleges, held in Colorado Springs, Colorado, November 7-9, 1949.

Murray of Montana was chairman. On Thursday, June 9, the Chairman presented a statement before a subcommittee headed by Representative Priest of Tennessee of the Committee on Interstate and Foreign Commerce. Representative Robert Crosser of Ohio is chairman of the full committee.

As a result of these hearings, a conference was held on June 15 and 16 in Washington, D. C., which was presided over by Dr. Lowell Reed of Johns Hopkins University, and there was bipartisan representation of the Senate Subcommittee. Doctors Berry and Hinsey were present. As a result of this conference, Senate Bill S. 1453 was rewritten and taken from the Omnibus Bill S. 1679 and H. R. 3894 was revised and taken from Omnibus Bill H. R. 4312. These revised versions were reintroduced on August 3, 1949. Under the date of August 19, each dean received a copy of the revised bill S. 1453.

On September 12, your Chairman sent a memorandum containing a statement for a representative of the Senate Committee on Labor and Public Welfare regarding the philosophy behind the inclusion of Schools of Osteopathy in the amended version of S. 1453, a copy of which was sent on September 30. In the Senate, the Committee on Labor and Public Welfare approved it unanimously, and it passed the Senate by a voice vote without opposition on September 23, 1949.

In the House of Representatives, it was approved by the Committee on Interstate and Foreign Commerce with the amendment including Schools of Optometry. It did not come to a vote of the Rules Committee of the House of Representatives before the end of the session. Early in October, opposition to the bill arose, particularly in North Carolina, on the part of hospital schools of nursing. In spite of the fact that this opposition was unfounded, it was thought unwise to push it for action of the Rules Committee.

This legislation will probably come before the House of Representatives in January. Your Committee is of the opinion that this legislation meets many of the criticisms that were previously raised. It is emergency legislation with a five year run and provides for a "report and recommendations concerning the extent and nature of support of education of professional and other health personnel which should be made available by the Federal Government in order to provide adequate health personnel to meet the health needs of the people." The National Council on Education for Health Professions is charged to make these recommendations not later than January 1, 1952. From responses we have received, your Committee is of the opinion that the majority of the medical colleges would be willing to accept aid under this legislation as the closest approach to helping with their financial problems. However, it does contain compromises that would make it difficult for the Association to give public support to it in its entirety.

Preventive Medicine in Tomorrow's World*

HENRY E. MELENEY
Hermann M. Biggs Professor of Preventive Medicine, New York University College of Medicine, and Visiting Professor of Public Health, American University of Beirut

My purpose this evening is to present my conception of the place which preventive medicine and public health can take in the development of peace and prosperity in this disturbed world, and how the American University of Beirut, in cooperation with the French Faculty of Medicine, the governments of the Middle East and philanthropic and commercial agencies, can contribute to that development.

The words "preventive medicine" are inadequate to express the full meaning in which they are often used today, but there is no brief phrase which covers the whole subject. Preventive medicine, in its strict sense, is a defensive term suggesting the warding off of harmful conditions. Equally important is a positive conception described as "constructive medicine" or the promotion and maintenance of optimum health. In order to live to his greatest efficiency, man should attain a level of physical, mental and spiritual health considerably above the mere absence of disease. This applies to the population as a group as well as to the individual, and thus includes the term "public health."

This positive emphasis on health has been expressed most forcibly by the World Health Organization in the preamble of its constitution which I quote. "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and states."

Since the time of the founding of the American University of Beirut, medicine has become a highly developed biological science. The physiological functions of the body in health and disease have been explained largely on the basis of enzyme activity and physical and chemical reactions. Nutrition has been placed on a sound basis by the discovery of vitamins essential to the utilization of foods. The causative agents of most infectious diseases have been identified and methods of protection against many of them have been developed. Accurate laboratory methods of diagnosis have been introduced. Effective chemotherapeutic agents from plants, from animals, from synthetic chemical compounds and even from microorganisms have been discovered. Surgical techniques have been developed which restore normal function and appearance with the minimum of risk, and new anesthetics have contributed greatly

*Read at the American University of Beirut, Lebanon, April 6, 1949.

to the safety of surgical procedures. Skillful and sympathetic nursing has also made a great contribution to the practice of medicine.

These great advances in scientific medicine have placed in the hands of well trained physicians powerful tools for the relief of suffering and the restoration of health. The Medical School of the American University of Beirut, operating under the American system of medical education, has shared in these benefits and has produced many leaders in medicine for the Middle East. The French Faculty of Medicine of Beirut, operating under the French system of medical education, has also made important contributions and produced many leading practitioners and government medical officers.

Although the advances in scientific medicine and medical education have produced many advantages for both physician and patient, they have also been associated with trends which are not favorable to the well-being of either the medical profession or the people as a whole. The necessity for elaborate equipment and many laboratory tests has made treatment so expensive that only the well-to-do can afford to pay for it. The vast amount of medical knowledge has led to specialization, and to the formation of boards for the certification of physicians qualified to set themselves up as specialists. This has improved the quality of specialized practice, but it makes preparation for practice longer and more expensive, and it tends to narrow the field of interest of the physician and to focus his attention on one organ or condition, often to the neglect of the patient as a whole.

The great increase in factual knowledge has also produced somewhat of a crisis in medical education. Students have been required to learn as many facts as possible and to perform many tests which might possibly help to establish an accurate diagnosis. They have become acquainted with all kinds of elaborate equipment and have come to feel that they cannot practice good medicine without it. In well equipped medical centers, where the teachers are nearly all specialists, both the teachers and students tend to consider their patients as "cases of disease," and often neglect to consider them as persons and as members of families and communities. Almost all students want to become specialists so as to assure their professional and economic success, and they wish to practice in large cities where specialization is possible rather than in small towns and rural areas where the improvement of medical service is most needed. This trend has led the American Medical Association to recognize the achievements of the rural practitioners by presenting a medal annually to one of them, and the Association is even considering the advisability of establishing a specialty board for certification of general practitioners. The crisis in medical education has led progressive leaders to advocate drastic changes in the medical curriculum with less emphasis on requiring the student to learn a vast number of facts, and with more emphasis on principles which will form a sound basis for the continuing education which a physician will need as a general practitioner or specialist, and as an influential citizen.

What I have said thus far about the development of medicine since the founding of the American University of Beirut applies primarily to curative

medicine. Equally great advances have been made in the field of preventive medicine. After the discovery of the causes and modes of infection of the communicable diseases, public water supply and sewage disposal systems were built to protect communities from gastrointestinal diseases. The development of dairy sanitation and the large scale pasteurization of milk reduced enormously the number of milk borne epidemics and the mortality from summer diarrhea in infants. Malaria control projects have been instituted by the drainage and chemical treatment of mosquito breeding waters, and, with the discovery of DDT and other insecticides, the prompt and economical control of malaria by house spraying has been made possible. Rat control and better housing have been undertaken in some areas. Tuberculosis has been reduced in certain regions to a position of insignificant importance as a cause of death, and a vaccine has been developed which promises to afford considerable protection to persons exposed to the disease. Diphtheria has practically been eliminated as a cause of death in some communities by the immunization of infants and children. Nutrition has been improved so that in some countries each new generation of children is taller and stronger than the one before. Health education in the schools and for the general public has made people health conscious. But most important of all has been the development of full time public health departments, free from political domination, staffed by well trained administrative and specialized personnel, provided with adequate funds, and organized to deal with the important health problems of the nation or local area to be served. Graduate schools of Public Health have been established, universities have provided graduate courses for the adequate preparation of public health nurses, engineers, laboratory workers and health educators, and teaching areas have been established for the practical instruction of all types of personnel.

Despite all the scientific discoveries, and despite the knowledge of how to apply them to the cure and prevention of disease, there are only a few small countries where all the people are adequately served by the best medical and public health facilities. In the United States, with its many large cities and enormous rural areas, it is only recently that provision has been made for the widespread construction of community hospitals, and that a long term program has been developed for full time health units throughout the country. A struggle is now going on between the American Medical Association and the Federal government as to the proper method of financing adequate medical care and health services for people of low income.

The greatest progress in medical education and public health has occurred in countries and local communities where general education has been most advanced, where an enlightened government has been interested in the welfare of the people, and where the general economic condition of the people has risen to a relatively high level. Unfortunately, there are many countries where lack of one or more of these conditions has prevented advancement in the health of the people. An enlightened government can accomplish much in public health by providing a reasonable amount of funds, by securing well

trained personnel and giving them freedom of action, and by imposing health regulations on the people. An example of this is the public health service established in Palestine under the British mandate. But the attainment of optimum health cannot be imposed on people from above. It can be attained only by the education and cooperation of the people themselves under the leadership of intelligent citizens imbued with the spirit of service.

The true spirit of medicine is the spirit of service. Those who have contributed most to the advance of medicine and public health have never been those who worked largely for personal gain. Many of them have suffered hardship and abuse, and some have even suffered death from human enemies or from the diseases which they have studied. This spirit of service applies not only to those who would become great leaders, it applies also to every physician and to every one in the professions associated with medicine. When a patient goes to a physician, he goes for relief from his suffering. He expects the best service which the physician can render. The attitude of the true physician is, first of all, to render this service to the best of his ability without thought of personal gain. He has no thought of exploiting the patient by unnecessary examinations, grand pretenses or exorbitant charges. Whether the physician is in private practice, is on a full time salary as a clinician or laboratory investigator, or is a health official, if he is true to his profession this spirit of service governs his every professional act. Only thus can the medical and allied professions develop to the high level of accomplishment which is the goal of the World Health Organization.

Leadership in attaining this goal must come from medical and nursing schools. They must include in their curriculum emphasis on health as well as on disease, and must give their students the basic training which will encourage them to practice preventive medicine and preventive nursing, and which will qualify them for elementary positions in public health departments. Two clinical departments in most medical schools, namely obstetrics and pediatrics, now conduct their teaching so as to emphasize the maintenance of health. Prenatal care aims to preserve the health of the mother and unborn child, detect any abnormal condition as soon as it occurs, and teach the mother how to prepare for her child's arrival. Skillful obstetrics aims to prevent accidents and infections of childbirth and to preserve the life of the newborn infant. When the pediatrician takes over the responsibility, he prepares a schedule for frequent visits to his office or clinic, prescribes the proper food, performs immunizations and shares with the mother pride in the normal development of the child. Illnesses are looked on as failures to carry out the proper regime or to protect the child from infection. Most obstetricians charge a fixed fee for the entire prenatal care, delivery and postpartum care, and many pediatricians do the same for the supervision of the child during infancy and the preschool years. In medical and nursing schools, well organized courses in obstetrics and pediatrics provide clinics, often in cooperation with public health agencies, in which the students can participate in all these activities. In some schools, in cities where many deliveries are performed in the homes,

a home delivery service has been developed in connection with the departments of obstetrics and pediatrics, so that the students can participate in the entire prenatal and infant hygiene program.

There is no reason why this emphasis on health should not be extended to all departments of the medical school. Anatomy, physiology and biochemistry teach the normal structure and functions of the body and the causes which lead to abnormal conditions. Pharmacology teaches the action of internal secretions and drugs on the normal and disturbed functions of the body, and on the infections acquired from without. Bacteriology and parasitology have an opportunity to acquaint the student not only with the organisms causing infectious diseases but also with their complicated life cycles, their modes of transmission and methods of prevention. Pathology and internal medicine and surgery, including all their specialties, are concerned with the causes of illness as well as with their diagnosis and treatment, and should make the student think how the illness might have been prevented and how repetition of the illness may be avoided.

There are often many factors involved in the causation of a disease, whether it is infectious, organic or functional, and these should all be considered in studying the patient. The presenting symptom or lesion may be only one evidence of the underlying difficulty. The student should learn how to take a social history of his patient and, when he finds some social condition which may have been a factor in producing the illness or which may prevent recovery, he should investigate it and attempt to have it remedied. Environment, social or religious customs, economic stress, mental strain, or personal relationships may be partly or primarily responsible for the illness, and unless these are corrected, permanent relief cannot be attained. These circumstances indicate the need for a Social Service Department in every hospital, especially in every teaching hospital. The medical social worker is an essential member of the medical team. She can gain the confidence of the patient, and by inquiry or home visits obtain information which will aid in a complete diagnosis or in successful treatment. She can often help to solve the social problem and prevent the recurrence of the illness. She can also guide the medical student in his social study of the patient.

This aspect of medicine is closely related to the field of psychiatry, which has extended its interest beyond the study of severe mental disease to include all psychological conditions which may disturb the normal functions of the body. A strong department of psychiatry is an essential unit in every medical school, giving instruction in each year of the curriculum, presenting first the normal mental functions and later the deviations from the normal in their increasing severity. This teaching should be coordinated with that of other departments so that the interrelation of organic and mental conditions can be fully appreciated.

Experience has shown that it is not easy to develop and maintain an emphasis on health in all these departments. It is necessary to have a strong department of preventive medicine and public health which will conduct its

own course and cooperate with other departments in presenting the preventive point of view. Such a department should be headed by a physician well trained in public health and also having clinical interests so as to inspire the confidence of the clinicians. The department should have sufficient personnel to cover the various aspects of the subject including public health organization and administration, epidemiology, personal hygiene, sanitation, industrial hygiene, medical statistics and the social aspects of medicine. Some of the instructors, like the director, should have full time appointments in the department, others should be members of other departments of the medical school, and some should be recruited from local public health or welfare agencies.

The foundation for instruction in preventive medicine and public health can be laid before the student enters medical school. The premedical curriculum can include courses in psychology, sociology, government and citizenship, and the first two, at least, can be required in order to prepare the student for a broad and humanitarian point of view toward personal and community problems. Excessive emphasis on biology, chemistry and physics exaggerates the tendency toward a narrowing of interest which has been criticized in the medical curriculum.

Some phase of preventive medicine and public health should be taught in each year of the medical curriculum. In the first year, a brief orientation course can be given on the relation of medicine to community problems. The student's own physical examination and immunizations can be used as a teaching exercise in personal hygiene, and can be correlated with the teaching in medical psychology. Medical statistics can also be taught as an introduction to public health, and in order to create a discriminating attitude toward quantitative results obtained in medical research. In the second year, a course in epidemiology can be given parallel to those in bacteriology, parasitology and nutrition. Laboratory instruction in methods of water, milk and food examination can be accompanied by field visits to observe environmental and food sanitation. This is also an appropriate year for instruction in the organization of public health administrative agencies from the local level to the World Health Organization. During the clinical years, when the student's attention is primarily focused on illness, special exercises should be planned to keep his attention on the preventive aspects of medicine. Here is an opportunity for the student assigned to the clinical study of the patient to inquire into the source of the illness, and under the guidance of an instructor, to visit the patient's home or other environment to trace the source of the infection or see the conditions responsible for the illness. When the patient is presented in clinic these phases of his illness can then be emphasized as well as the strictly medical aspects.

Finally, after the student has gained clinical experience, he should have an opportunity to spend several weeks in a well organized public health agency, observing and participating in its activities. There he can see the administration of a public health program, accompany the public health nurse on home

and school visits, participate with the sanitarian in the investigation of environmental health problems, and work with the health officer in the investigation of communicable diseases. He might also be required, during his last summer vacation, to make a public health survey of a community and to recommend measures for its improvement, thus making an original contribution to public health.

Such a course may involve considerable revision of the medical curriculum, and requires cooperation from the entire medical faculty and from outside agencies, but it should produce physicians interested in the broadest aspects of medicine, and in public health as a career.

In the countries of the Middle East, which the American University of Beirut and the French Faculty of Medicine serve, the low economic status of most of the people and the high incidence of infectious diseases make it especially important that the main medical effort be exerted toward the prevention of disease and the promotion of health. Curative medicine can be practiced forever without making much impression on the high incidence of disease, whereas the development of adequate public health services and the education of the people to make use of them can improve the well-being of the people greatly in a relatively short time. It is important to decrease the death rate, and it is equally important to decrease the burden of illness and improve the general health of those who survive so that they can work more efficiently, raise their economic status and live more happily. Illness among the poor is a burden not only to themselves but also to the well-to-do and to the whole nation, so that there is a selfish as well as a philanthropic reason for an intelligent people to stimulate the government and to cooperate with it in promoting better health. Lebanon can benefit greatly from tourist trade and from the establishment of a great center for air travel, and visitors and travelers by air will be attracted to this region in greater numbers if they are confident that they can enjoy its beauties and historical wonders without fear of contracting disease. Lebanon, with its two medical schools in Beirut, can also set the standard in public health for the neighboring Arab countries and can benefit from their improvement in health.

It is gratifying to know that a number of steps have already been taken in order that Lebanon can assume leadership in public health. The Ministry of Health and Public Assistance has been placed under a competent physician. The Rockefeller Foundation has made a study of health conditions in Lebanon and Syria with recommendations for a progressive public health program. The Parliamentary Committee on Public Health, with the cooperation of other interested physicians, has drawn up a plan of organization for an efficient Department of Public Health separate from that of Public Assistance. The government has agreed to cooperate with the Rockefeller Foundation in the establishment of a public health demonstration and teaching center.

These are hopeful signs but they must be followed up by further government action. Public Health must everywhere be free from political control. Most of the public health personnel should be employed on a full time basis

and must be paid salaries adequate for maintaining a good standard of living. Fellowships must be provided for physicians, nurses and sanitarians to obtain graduate instruction in public health. An adequate appropriation must be provided independent of the budget for Public Assistance, and this appropriation must be allocated strictly to the essential services in a progressive public health program. Unessential personnel must be eliminated in the interest of efficiency and economy. The department of public health must be organized on the basis of the proposed plan, with the machinery for the collection and analysis of vital statistics, the establishment of a public health laboratory, and with divisions of sanitary engineering, preventable diseases, maternal and child hygiene and public health nursing.

The American University of Beirut and the French Faculty of Medicine can contribute greatly to the advancement of the public health program. They can revise their curriculum to expand the teaching of preventive medicine and public health. They can cooperate with each other in the study of public health problems. They can cooperate with the government in investigating epidemic and endemic diseases, and in advising on public health procedures. It may be advisable to establish in Beirut a Graduate School of Public Health for physicians, nurses and sanitarians, using instructors from both universities and emphasizing the local health problems of the Middle East. In order to make either the undergraduate or the postgraduate teaching effective it will be necessary to develop efficient public health departments for Lebanon and for the city of Beirut, and a special teaching area for field observations and research. Such developments will require increases in teaching staff, space and equipment, which presupposes generous financial support. This can undoubtedly be obtained from commercial interests, philanthropic agencies and the Lebanese government if a suitable plan for the necessary expansion of facilities is presented to them.

Progress in public health also needs the stimulation and cooperation of voluntary welfare agencies and professional groups. The Lebanese Red Cross, the United Nations International Children's Emergency Fund, the Commission on Tuberculosis of the World Health Organization, the Civic Welfare League and other agencies can make demonstrations which will lay the foundation for permanent health department activities. The recently organized Lebanese Public Health Association, composed of government health officers and other interested physicians, can aid by educating its own members and by introducing new ideas. The Lebanese Medical Association can also assist greatly by actively encouraging the development of efficient health departments, and by urging its members to conform to the legal requirements in the practice of medicine.

The oil companies which have obtained concessions in the Middle East are greatly interested in the development of public health and in the education of physicians and nurses in the preventive aspects of medicine. Large communities are springing up about their installations, and they have accepted the responsibility for the sanitation of these communities and for the health

of their employees. This is wise for economic reasons, and also as a contribution to the advancement of the countries in which they operate. Although it is necessary to provide hospitals and dispensaries with modern equipment and expert staffs to care for illness when it occurs, the companies are more interested in promoting and maintaining health among the thousands of people whom they employ. For this reason they need physicians and nurses trained in public health, and can use the graduates of the Beirut universities if they are qualified by adequate preparation. It is reasonable for the oil companies to contribute to the provision of facilities for the education of the public health personnel which they require, and they will undoubtedly welcome the opportunity of doing so. This is one of the important developments in industrial medicine and hygiene in the Middle East. It should stimulate similar developments in other industries and should serve as an example to governments in providing adequate health services for the general population.

From this discussion it is obvious that the essential needs for initiating the Era of Health in the Middle East are education, financial support, organization, cooperation and unselfish leadership. Education includes the adequate training of public health physicians, nurses and sanitarians, enlightenment of governments in their public health responsibilities and instruction of the people to avoid illness and demand a healthful environment. Adequate financial support can be obtained by reasonable taxation, economy and honesty in government, efficient administration, and contributions from benefiting commercial interests and philanthropic foundations. Proper organization will result from utilizing the experience gained by countries which have advanced to a high level of public health, and from adapting their methods to local conditions. Cooperation can be obtained by the proper approach to the people and to local and international agencies interested in public health. Unselfish leadership already is available and will appear in increasing quantities if it is given freedom to act.

The Middle East is emerging from a long period of suppression. It has been drawn into conflicts in which it had no direct interest or which were caused by acts beyond its control. It is now going through the struggle of readjustment to independence. Natural resources have been discovered which can aid it in achieving reasonable economic standards. It has serious problems of conflicting religious and social customs. If it can now focus its attention on overcoming ignorance and disease, it should be able to produce a generation of healthy and intelligent people who will see the wisdom of solving the social problems which retard the attainment of a unified, mutually helpful region of the world. The American and French universities of Beirut have been important seats of learning and sources of leadership in the Middle East for more than three quarters of a century. By adapting their teaching to the new era of constructive international cooperation, and by joining forces in their common interests, they can make great contributions to the welfare and happiness of the Arab world.

The Individualized Internship

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It is often said that the future of this country lies in the hands of our children. It may also be said that the future health of the nation lies in the hands of the young doctors of today. But the world in which our children will participate with all their energies tomorrow is the world which we of this generation prepare for them. The type of medical men and the services rendered by the physician tomorrow will likewise depend on the training given the young doctor today.

It must be admitted that insufficient attention has been given to the training of the young doctor, in order for him to solve the problems of *tomorrow* even though it must also be admitted that it is not easy to foresee what new scientific discoveries may revolutionize our diagnostic, therapeutic and social thinking.

Yet the internship offers an excellent opportunity for the training of physicians, notwithstanding that much of our planning must be guided by the requirements of various state boards of medical licensure. We feel that medical educators have not realized the full potential of the internship in the training of physicians, therefore, we want to call attention to the policy of adapting the internship to the intern.

An intern training program should not be rigid. It is bad enough that medical schools, on the whole, attempt to stamp all their students out of the same mold; the internship, therefore, should be the time when this evil can be corrected. The internship should be individualized.

A moment's reflection will show that in any group of interns there will be represented all shades of personalities—timid and aggressive, tactless and tactful, introvert and extrovert, selfsufficient and dependent. Consequently, no ironclad program or philosophy will suit them all. Allowances for this fact will, of necessity, spell elasticity in the training program.

As their personalities differ, so do their interests. A wise program will encourage the research and academically minded while not inhibiting those whose interests lie elsewhere, and vice versa. The program must be suitable to the wide range of interests found among any group of individuals in order to bring to flower any deeply buried seed capable of fruition. This means that if an intern shows a special interest or aptitude in psychiatry or radiology or in

any phase of medicine he should be allowed to spend more time in his preferred field than might ordinarily be the case. This immediately brings up a host of widely divergent ideas and experiences and it may be advisable to summarize current thought.

If the internship is to be flexible, should a hospital offer rotating internships, or is the "mixed" or "straight" variety preferable? Can all three types exist at one time in one institution? We must first ask: What is the purpose of an internship? What are we trying to accomplish?

The internship is a period for the concentrated practical clinical training of a recent graduate. Dock[1] has spoken well against the use and abuse of clinical clerkships during the senior year in medical school. But assuming a certain amount of preinternship, the practical bedside application of what was learned in school is developed in the hospital. However, to decide whether an intern should have a smattering of knowledge or a onesided view, one must ask what are we training these men for? Obviously, if one is to train the old fashioned family physician, one would advise a rotation type of internship, but one can well question the wisdom of allowing a physician with, perhaps, only three or four months of surgical training to go out into the world believing, and allowing his patients to believe, that he is "well trained" to perform difficult surgical procedures. Nevertheless, this occurs and is the direct responsibility of our medical education system. Then, how much surgery (or obstetrics or pediatrics, or otolaryngology, etc.) should the general practitioner have? One suddenly comes to the realization that of all varieties of doctors the general practitioner needs the most training! Since his responsibilities are, in a sense, wider than that of specialists, his training should be extensive in all the fields he may be called on to work. Since there is a limit to the number of years (financially unproductive) a much educated doctor can afford to spend in training, it appears that a future family physician should have a minimum of two years, preferably three, of a general rotating internship.

But what about the young doctor who does not want to be a general practitioner but would like to limit his practice to a specialty? Should he be made to waste valuable time in rotation through services he never will be called on to perform? It has not been proven that a resident trained in the rotation system is necessarily a better physician. On the other hand, some state laws require a rotating internship for licensure. The argument for it is well worn and scarcely needs repetition. As a theoretical, philosophical concept, the advantages of a "well-rounded background, etc.," are sound. But, we live in a world immeasurably different from that of fifty or even twenty-five years ago and we must recognize the changing patterns of medical practice. The horse and buggy will not come back. One may have sentimental views on the subject, but one must recognize that specialization is here to stay and, so far as one can see, it will increase in importance. One must take hope in three factors present in modern medicine:

1. The telephone and automobile have brought the semirural and urban region practically together,

2. Numerous attempts by private or government sources to improve the distribution of medical care makes the specialist more available to those who need him,

3. As Dock[2] has quaintly put it, engineering has not suffered because they have abolished the general engineer and train (early in engineering school) specialists, i. e., chemical, electrical, civil, mechanical, etc.

Recognizing the *de facto* state of medical specialization, one wonders why an intern should not have the choice of specializing during his internship. In many states, all varieties of internships exist, single, two, three or multiple services. There is no evidence to show that physicians in such a state are less skillful because of this than those in states which require a rotating internship. Would it be chaotic for a hospital to offer a combination of internships? Probably, "yes," from an administrative viewpoint, but, perhaps, when one gets down to cases, not as awful as it sounds.

For a future general practitioner, a straight internship is inadvisable, just as the reverse is unnecessary. We believe, perhaps optimistically, that if residency appointments were made without regard to the type of internship served, more physicians would want the rotating internship in order to be prepared for general practice or a residency. They may find that general medical practice has a quality of variety and experience all its own—and is also quite attractive.

A word may be said about the philosophy of the training program. A general practitioner must know techniques. Since he alone attends to all minor and many major ills, he must be proficient in setting bones, delivering babies, draining sinuses, doing blood counts, reading X-rays and lancing boils. He should be taught all these things, and more, during his internship. We do not mean merely the rudiments. His first patient may require more than rudimentary knowledge.

The residents in general surgery and its subspecialties will want to "do" more and more of more and more operative procedures, unfortunately too often to the detriment of their less dramatic but more important ability to diagnose and to manage the patients' care pre- and postoperatively. Operative training must not dominate a surgical residency, for this produces mechanics—devoid of humane understanding and judgment. This type of trained surgeon never attains high standing among his surgical colleagues.

In some large hospitals there exist many subdivisions of medical service for efficiency and better care. Thus, at Philadelphia General Hospital, separate departments of neurology, tuberculosis and dermato-syphilology exist. Each division has its own residents. Diabetics are treated separately on a metabolic service although medical residents rotate through this division. There is much to be said about the necessity of adequate training for an internist in neurology and tuberculosis as well as dermato-syphilology. At the Philadelphia General Hospital, fractures are treated on the orthopedic service; cancer of all types is treated by the radiological service; thus urological, abdominal

and gynecological cancer cases usually are not seen by the staff physicians or residents on the specific services.

To overcome these obvious shortcomings, general surgical residents rotate through orthopedics, gynecology, urology and radiology (as well as other surgical subspecialties) and medical residents rotate through dermato-syphilology, tuberculosis and neurology. We should consider adding psychiatry to the rotation schedule. But here the problem of limited time presents itself.

If the object of a residency training program in internal medicine is the training of the internist, he should be able to recognize and manage a variety of medical conditions, including neurological and pulmonary diseases. If the object of a program in neurology is the training of the neurologist, then, obviously, he must concentrate on neurology with detours through neuropathology, neurosurgery and psychiatry, with little time left for general internal medicine. We obviously cannot have our cake and eat it, too.

Therefore, we suggest that just as there are very definite advantages to a rotating, mixed or straight type of internship, depending on the personality and interests of the individual intern, there should be mixed and straight types of residencies, again depending on and adaptable to the man involved. A rotating residency seems to be anomalous. In our program of intern and resident training conferences between the trainee and the director of medical education are frequently held so that a flexible individualized program may be planned.

Within the framework of the internship or residency of whatever type, the educational program must have certain features.

1. AS WIDE A VARIETY OF CASES AND EXPERIENCES AS POSSIBLE

This depends on the type of hospital and the attitude towards "rotation."

2. AS CLOSE TO INDIVIDUAL INSTRUCTION AS POSSIBLE

This depends on the acceptance by the hospital of the responsibility of training physicians and necessitates the appreciation of the rare quality of teaching ability[3] and the requirements of compulsory attendance by the "attending" physician.

3. OPPORTUNITIES FOR LEISURE (TIME TO THINK) AND READING

This means fewer patients per doctor than most hospitals average, except a few leading teaching and academically minded institutions. It means an adequate medical library, open during evenings when the house staff has an opportunity to read.

4. OPPORTUNITIES FOR INVESTIGATION TO DEVELOP AND SATISFY NORMAL CURIOSITY

Few interns and residents can be expected to produce widely significant research work, overworked as they are. But a chance to "try" something will pay immeasurable dividends in the future by keeping alive a flicker of healthy curiosity and refusal to accept dogmatic authority, besides making them critical of medical literature. At the Philadelphia General Hospital, we have a house

staff organization, The Blockley Research Society, which encourages original, investigative work as well as case reports and statistical surveys and which meets frequently for the presentation of papers. A prize is given yearly by the Medical Board for the best presentation. A list of investigative problems applicable to the time available to interns may be consulted.

5. OPPORTUNITIES FOR EXCHANGE OF IDEAS WITH THE OUTSIDE WORLD

Inbreeding has its evils and it is essential for interns and residents to learn how men in other institutions think and act. This may be more true for surgery than for medicine. At the Philadelphia General Hospital, we have a weekly clinical laboratory conference to complement the weekly clinical pathological meeting. Patients illustrating important clinical or physiological problems are presented. We have been fortunate in inviting prominent physicians who are not on our staff to discuss these cases. The original viewpoints presented by these men has been refreshing and thought-provoking. Furthermore, a system of "exchange" residencies has been established with the Cleveland Clinic and the Memorial Hospital, in New York.

6. DEVELOPMENT OF THE SENSE OF THE OVERWHELMING IMPORTANCE OF THE SOCIAL AND ECONOMIC ASPECTS OF ALL MEDICAL PRACTICE

Here lie the greatest potentialities of a hospital, which, unfortunately have been almost completely neglected. Every sick person is a sociological problem since the cause of his illness may lie in his poverty, ignorance or social cubicle. Treatment of an individual patient (particularly of a psychoneurotic) without significant attention and changes in his environment is wasted. The implication of the Home Care program such as has been developed by the Montefiore Hospital in New York,[4] lies, primarily, in its realization of the social responsibility of the doctor. It is safe to say that in time medicine will deal with the environment, mental and physical, as much or more than with the endpoint of the disturbance, the patient's disease.

The Social Service Department has a fundamental and not fully appreciated role in the total management of the patient. But the intern's idea of the department, unfortunately, is that of an agency concerned almost exclusively with minor financial problems. Few hospitals have a social service budget commensurable with its potential value to the individual or the community as a whole. But the value of an internship and residency is sadly reduced if the intern never has an idea of the family, home or factory to which he is returning his patient. Administrators and governing boards could learn a great deal from "Widening Horizons in Medical Education"[5] and should adapt the principle of the "home visit" to the internship. Plans along these lines are being prepared at the Philadelphia General Hospital.

Hospitals have a tremendous source of "teaching" opportunities, which range from medical and surgical films, combined staff conferences (urological-pediatric-x-ray, etc., medical-surgical) journal clubs, medical staff, symposia, tumor and cardiology conferences to actual courses in surgical anatomy and

electrocardiography. We have all of these at the Philadelphia General Hospital but realize that one must draw a line as to the number of activities during the day and night.

SUMMARY

The internship must be flexible to develop and utilize the best in a wide variety of types of interns, with vastly different personalities and interests. The rotating internship is suitable for some, the "straight" for others; no one plan of training is suitable for all.

We must not swim upstream against the tide of specialization and there is a place for a mixed as well as a straight type of residency. It all depends on what and whom we are trying to develop. The future specialist may need greater training in diagnosis and treatment; the future general practitioner, with his great responsibility, actually needs as much training in length of time as does the specialist.

The internship and residency should encourage reading, research and appreciation of daily social problems to prepare physicians for their future experience.

REFERENCES

1. Dock, W.: The Medical School's Relation to the University and to the Practice of Medicine, *J. A. A. M. Colls.* 23:3, 1948.
2. Dock, W.: Personal Communication.
3. Waife, S. O.: They Deserve Good Teachers, *Mod. Hosp.* 71:96 (Oct.) 1948.
4. Bluestone, E. M.: Home Care, An Extramural Hospital Function, *Survey*, April, 1948.
5. Widening Horizons in Medical Education: Report of the Joint Committee of the Association of American Medical Colleges and the American Association of Medical Social Workers, New York, Commonwealth Fund, 1948.

Instruction of the Medical Student in Pediatrics

An Insight Into Family Practice

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Instruction of the medical student is concerned primarily with the training of the future family doctor. Undergraduate training suffers from having to be provided under conditions dominated by hospital considerations of disease. As a result the recently qualified doctor entering general practice has to adjust his outlook. He is not long in practice before he realizes that many of the problems which appeared simple of solution when seen in hospital are complex when considered in relation to the needs of the home. Short of restoring the old-time apprenticeship system it is difficult to see how this handicap can be completely offset.

The handicap applies particularly to undergraduate study of health and disease in infancy and childhood. Ward instruction is deficient because of the absence of the mother and of any visual reminder of home conditions. The deficiency is made good in part, but only in part, by teaching in hospital outpatient departments, at infant welfare sessions, and at school medical inspections. These sessions, no matter how efficiently they are run, are apt to suffer from a routine intended to cope with a considerable number of children in a set period of time. Health and disease in childhood are studied in an atmosphere of organized efficiency rather than one of intimacy of understanding. The student is left with an impression of a limitless tide of "cases," some of interest, others of doubtful interest. The tide is apt to flow with such speed that in his concern over physical findings the student is insufficiently impressed by the human family problem presented by each child. Nor can the hospital clinician, be he ever so able a teacher, convey to the students that full depth of understanding of mother and child and family circle which makes for successful care of child life in general practice.

EXPERIMENT AT LEEDS

The medical student taking out his course of clinical instruction in pediatrics and child health at the University of Leeds is given opportunities of seeing healthy and ailing children in hospitals and at clinics, handicapped and "deprived" children in day and residential homes, and some of the homes from which sick children have been admitted for treatment in hospital wards. In the course of his studies the same student meets practitioners on the visit-

ing staffs of hospitals and in the employ of local authority child health services, nurses working in hospital or as health visitors, school nurses, and district nurses or district midwives. He is given a didactic lecture by a family doctor on the theme of pediatrics as met with in general practice, but until recently has not seen the family doctor at work.

We are convinced that the family doctor has a vital part to play in care of the child in health and disease. We are equally convinced that training of the future doctor in pediatric care would derive immeasurable benefit from early insight into such care as is provided in the course of everyday general practice. Ourselves (W.S.C. and F.C.N.) brought up from childhood in the households of family doctors, we are acutely aware in our professional work today of the debt we owe to that privileged experience of the past. Over a number of years one of us (F.C.N.) has made a special study of infants and children seen in the course of day-to-day family practice. Study pointed to the desirability of expanding the range of service offered to mothers and children in practice. One way in which expansion was developed was to reserve an afternoon each week for consultations for mothers and their children. In effect a clinic was established as an integral part of the activities of the family practice. The clinic proved a success from the start and has now run uninterruptedly for almost two years. There is implied recognition of its value in the authority recently given by the local executive council to continue the established policy of reserving one afternoon each week for mothers and children.

We felt that the training in pediatrics of the future general practitioner would benefit by insight into the work of a clinic conditioned by the circumstances of family practice. Experimental arrangements were therefore made to enable students, while attached to the University Department of Pediatrics and Child Health, to visit the clinic. We are satisfied that the arrangements have proved their value. The purpose of this paper is to give an outline of the arrangements and their results, because it is considered they indicate means whereby undergraduate, and indeed postgraduate, instruction of the medical student can be widened and improved.

THE GENERAL PRACTICE

The practice is one of a number in a non-university city with an approximate population of 100,000. The bulk of the work is concerned with the families of manual laborers, clerical workers, and shop employees. Of other persons on the practice list a small number are members of professional and military families. Midwifery constitutes an important part of the activities of the practice, and in the matter of social groups reflects the distribution characteristic of the practice as a whole.

THE CLINIC

The clinic is held in the family doctor's private house, which is situated in a working class district. Accommodation consists of a weighing-cum-secretarial room, a waiting room, and a consulting room with screened examination

couch. The accommodation is in fact the "surgery." Furnishings include low seats suited to use by nursing mothers.

Sessions are held weekly. The family doctor (F.C.N.) has the assistance of a secretary and nurse, and has recently been offered the services of a health visitor by the maternity and child-welfare authority. Attendance is on a voluntary basis and by appointment. Mothers who attend with their babies consist of those delivered by the doctor; of those who are on the doctor's National Health Service list but who have been delivered in hospital or by a midwife, and a few referred by the doctor's partners in the family practice. Of newly born infants in the practice approximately 80 per cent attend the clinic. Mothers are advised to attend weekly until the baby is 3 months old, fortnightly during the next three months, and thereafter at monthly intervals until the baby reaches his first birthday. Older children attend at longer intervals or at any time, prior to school age, when their mothers wish advice on account of any difficulties in upbringing.

Attendances average twenty-six a session. All children are weighed, and individual records are kept on separate cards. Duplicate cards are kept by the mothers. At any one session rather more than 50 per cent of those attending are seen personally by the doctor at the request of the mother, at the instigation of the nurse, or in accordance with arrangements made by the doctor at the time of a previous visit.

Work of the Clinic.—The ages of children attending range from a few weeks to 5 years. Infants predominate. All children are accompanied by their mothers, who know that they must not bring any child thought to be incubating or harboring infection. It is one of the objects of the clinic not to divorce care of the infant from care of the mother or family. Health and disease are not arbitrarily differentiated. General management, the promotion of health, and the prevention of disease receive equal attention. The indications for consultations arise from an infinite variety of circumstances. They include comprehensive routine inspections; the supervision of infant feeding, whether breast, complementary, or wholly artificial; attendance for vaccination or immunization; requests for advice concerning symptoms which, were there not a clinic, might be ignored; family problems such as those arising from ill-health of the mother or from enuresis on the part of the child; and social problems such as those concerned with adoption and illegitmacy.

ARRANGEMENTS FOR MEDICAL STUDENTS

Attendance at the clinic is entirely voluntary. Provision is made for three students accompanied by a registrar (M.F.G.B.) to be present at each session. A number of factors, including those related to distance and transport, make it impossible to arrange for any one student to be present at more than one session. At the time of his visit the student is encouraged to discuss the individual problems he has seen and any general considerations which particularly interest him.

All students have taken advantage of the opportunities offered them. They

know they are taking part in an educational experiment. No attempt has been made to influence them in their views, and particular care has been taken not to initiate comparisons concerning different services for the care of child life. The students have willingly cooperated when asked after their visit to give a written account not so much of their impressions concerning detail as of their reactions to inclusion of the visit in the course of their training.

THE STUDENT'S REACTION

A point of practical importance is that at no time has there been any unfavorable reaction to the presence of students on the part of mothers attending the clinic. As to the students themselves, while some few were constructively critical of certain aspects of the arrangements made for them, all testified to the value of their visits to the clinic. Many were unreservedly enthusiastic. Significance attaches to the reasons given for their opinions.

Almost all the students stressed that the visits had given them their first opportunity to "see general practice in operation." Of those who made this comment a number wrote of having appreciated for the first time the part which the family doctor can play in the care of child life in health and disease. Reading their remarks, it is evident that a number of students had had borne in on them how many of the children they see in the hospital outpatient department could be properly dealt with in the more suitable environment of a family doctor's consulting room. Others, again, were impressed by seeing conditions which are rarely encountered in hospital but which, although they may have no serious immediate clinical significance, bulk more largely in general practice.

Most of the students remarked on the advantages to child care of the mutual understanding and trust which it is within the power of the general practitioner to establish with the families he attends. Other students appreciated the initial advantage possessed by the family doctor whose care of children starts in the form of antenatal supervision of the mothers and who knows the background and capabilities of families in his practice. A number of students, men and women, sensed the benefits to infant feeding of supervision being undertaken by a doctor herself the mother of a family. Women among the students realized that marriage and a family do not necessarily debar a woman from making a vital and special contribution to child care in general practice.

We consider that the various views expressed by those visiting the clinic support the opinion that the experiment has justified itself. Evidence in favor of this opinion is to be found from the following extracts from notes sent in by three students who have taken part in the experiment. Telling of his outlook before visiting the clinic, one student wrote: "As a medical student one of the impressions I had conceived of general practice was that any case which required a little more trouble taken over it than normal was immediately referred, especially in pediatrics, to the already overworked hospital."

Another student wrote: "It (the visit) helped my sense of proportion in

realizing the great value of the general practitioner in the promotion of child health." A third student summed up his impressions as follows: "The visit made me realize that general practice is not static and can be made progressive . . . and can provide intellectual satisfaction."

SUMMARY

Measures for the care of child life must be based upon the home. The family doctor has a vital part to play in any such measures. If it is to fulfill its primary function medical training of the undergraduate must be directed towards preparation for family practice. Teaching instruction in the care of child life is handicapped by difficulties in the way of giving the medical student practical insight into conditions prevailing in family practice.

An educational experiment is described which is intended to offset these difficulties in part at least. It is considered that the experiment has been a success, is capable of further development, and might be extended to a wider field of medical training than that concerned solely with health and disease in childhood.

Graduate Medical Education in United States Army General Hospitals

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In view of the unsettled international situation, the military defenses of our nation are a matter of great interest to all citizens. As was so amply demonstrated during the recent war, the preparedness of the Medical Services of our Armed Forces was a matter of extreme importance. The very rapid expansion of the Army Medical Corps necessitated dependence very largely on Reserve Medical officers drawn from civilian practice. As a consequence, the medical officers in the Regular Army Corps had to be assigned chiefly to administrative duties.

With demobilization, the Army was faced with the task of restoring its regular medical officers to full professional standing, while at the same time reorganizing its general hospitals on a peacetime basis to provide the high quality of graduate education and medical care required for the task.

Because of my special interest in internship and residency education, it was a pleasure to accept Major General Raymond W. Bliss's invitation to assist in the Army's Graduate Professional Education Program for Medical Officers. The medical colleges of the country had already received a report of the program from Major General George E. Armstrong,[1] Deputy Surgeon General, U. S. Army.

My first mission was to make a survey of the intern and resident programs being conducted in four of the nine Army teaching hospitals. Since a high level of professional knowledge and ability of the medical officers of the Regular Army is essential to military medical preparedness, a report of findings should be of interest to both medical educators and military leadership. It is believed that the achievements of the Army's graduate program will be of interest and value to civilian hospital educators as well as a guide to future solution of many of the problems with which the Armed Services are confronted.

In order to accomplish these surveys, three days were spent at Fitzsimons General Hospital, Denver, Colorado; at Brooke General Hospital, Fort Sam Houston, Texas; at Walter Reed General Hospital, Washington, D. C., and at Oliver General Hospital, Augusta, Ga. At each location, full cooperation was given by the hospital commander and his staff. Every opportunity was afforded to observe all of the various aspects of each program. Though the

1. Armstrong, Geo. E.: "The United States Army Medical Corps and Medical Education." *J. A. A. M. Colls.* 23:289-296 (Sept.), 1948.

schedule of events covered by the survey was quite heavy, there was free opportunity to choose those to be observed and to converse freely with the interns, residents and instructor personnel. Though each hospital had received prior information concerning the visits, it was obvious that every effort was made to present an average picture of the hospitals' daily operations.

The survey was based on two approaches to a sound evaluation of graduate medical education programs. The first and most fundamental of these is observation and study of the extent to which the staff is providing the best modern diagnostic and therapeutic care for its patients. A system which insures a high degree of excellence in this respect in like manner assures a good foundation for the education of each participating intern, resident and staff member. In order to examine the quality of this essential, systematic observations were made to test the extent to which the various staff members carried out complete diagnostic procedures, systematic checks of findings at all levels, and consistent follow-ups of the results obtained. These factors were investigated at outpatient clinic sessions, and in wards, laboratories and treatment rooms. Unselected medical records were inspected in each of these locations at every opportunity. I also took great care to observe the attitude of each medical officer toward his patients, as well as his methods and techniques of treatment.

The second important approach was that of observing and evaluating the teaching methods, mechanisms and techniques which were employed by the various members of the staff during formal and informal ward rounds as well as in other scheduled educational activities. An elaborate array of formal conferences, seminars and lectures are conducted by all of the hospitals which I visited. During each survey, a representative cross section of those exercises was attended. By using these two approaches, in conjunction with personal interviews, it was possible to obtain an adequate picture of the facilities, equipment, arrangement, efficiency, atmosphere and spirit of each institution.

ONE YEAR ROTATING INTERNSHIP.—Each hospital I visited employed a practically identical internship system. This one year rotating program is prescribed by Army Regulations and other directives issued by the Surgeon General. Since the program was reinstituted in 1946, it has had the benefit of a fresh start. Very extensive studies were made of outstanding civilian hospitals with the purpose of adopting their best features. As a consequence, a very commendable internship, as well as a residency educational program, have been developed in a remarkably short time.

The rotation internship provided experience for periods of from one to four months in medicine, surgery, obstetrics, gynecology, ophthalmology, otolaryngology, urology, neuropsychiatry and the laboratory. The length of each period was varied in accordance with the accepted importance of the field in a general type of practice. While considerable discussion and some questioning was heard concerning modifications of the plan by lengthening some of these assignment periods and shortening others, the interns and executives were quite unanimous in expressing their satisfaction with the

arrangement then used.[2] They pointed out that under the Army plan, much more intensive and extensive teaching, together with supervisory attention, are focused on the intern than is the case in many civilian hospitals. In short, a real effort is made to provide an internship curriculum. The older staff members, as well as the interns, seemed to be convinced that experience in a large number of fields is of great value in aiding the individual to decide which type of practice he should select for his future career in the service. It also provides a broader base for further training and professional practice.

None of the interns interviewed expressed dissatisfaction. While most of them were married, and frankly admitted that the salary inducement had been a factor in accepting appointment, they stated that after they had had an opportunity to compare their experiences with those of their classmates in civilian hospitals, they were convinced that the Army internships are closely equivalent to those of the university hospitals in which they served their clerkships. They expressed appreciation of the financial security which they had not previously experienced, but the psychological "lift," as a result of being treated as responsible officers rather than as underling apprentices, made an even greater impression on them. The courtesy and consideration extended to them as junior colleagues went far toward the building up of self confidence and a sense of being counted as a real member of the team. The appointment of educational directors and intern representatives provides the maximum opportunity to clarify misunderstandings and to bring out new ideas. Suggestions from the interns receive prompt and sympathetic consideration. Educational directors confer with the interns individually at regular intervals concerning their problems and possibilities for betterment. The presence of full time duty officers, of attending consultants from neighboring medical schools, giving six hours' time on their day of attendance, and a resident staff insure an internship with emphasis on teaching. All of these factors contribute to high morale, good spirits, initiative and scholarly interest of the intern groups.

The new interns are given an orientation period before beginning their actual service. While this has been considered satisfactory from a military point of view, it was recommended that it be amplified professionally to include demonstrations of standard diagnostic and therapeutic techniques (spinal puncture, intravenous therapy, clysis, etc.) as they are performed by the hospital staff; nursing procedures and techniques (colonic irrigations, enemas, stupes, etc.): together with other special procedures which the intern may be expected to follow or to order. In other words, at the very beginning the intern should have a thorough introduction to the various phases of hospital operation which will enable him to become an efficient member of a smooth working team.

In contrast to the usual impression of much of the civilian medical profession and that of the faculties of the medical schools, the variety and extent of the intern's experience in Army General Hospitals closely approximates

2. The Army internship rotating plan has recently been modified to provide 4 months each of medicine and surgery, 2 months of gynecology and obstetrics, and 2 months elective period..

that in hospitals under private control. While it is true that males tend to predominate, there are active obstetrical, gynecological and pediatric services in all of these institutions. Some interns expressed the opinion that there are fewer acute cases and a slower turnover than in active private hospitals. This belief is partially borne out by the fact that the average patient's stay is approximately twice as long. Yet, this does not appear to be a real disadvantage since the variety of diseases and the admission rates are quite adequate and the number of patients per house staff member calculated against the average census is usually about twice that of similar civilian institutions. The longer patient stay is utilized to allow the interns more time to carry out a thorough study of each patient, and to continue their observations at follow-up clinics. Frequent inspection of clinical records revealed complete histories and physical examinations which were typed according to a specified outline. Differential diagnostic possibilities, working plan, summary of findings, progress notes, laboratory work-up, and a final diagnosis were a part of the record in each case. All members of the staff used dictaphones to record their findings. This procedure resulted in completeness, legibility and a great saving in time. Microfilming of these records provided a duplicate which is retained by the hospital in its clinical record library.

RESIDENCIES.—While one is conscious of the newness of the various residency programs, one was also impressed with their soundness of plan and careful consideration of all the implications of a good educational system. As a result, these programs have been a definite success from the start. The leadership furnished by the Surgeon General and his staff, as well as that of the various hospital staffs has been exceptionally wise, dynamic and inspiring. Few mistakes of consequence have been made.

Graduates of these programs, whether specialists or general clinicians, will not only possess the skills required in the practice of military medicine but will be valuable as future teachers or as future civilian practitioners. My first general impression of the resident group was that they were older and, therefore, more mature than those ordinarily found in similar civilian institutions. A high proportion of them have performed military tactical and administrative duties of from two to four years' duration. Others have had prolonged professional duty in station hospitals prior to beginning the study of a specialty. Although they present wide variation of rank (captain to colonel), with senior officers serving as assistant residents, no difficulty, as a consequence, was observed. This is evidence enough of the spirit of the entire group. All participants keenly realize how much the opportunity means to their professional future even though certification by one of the boards may contribute little toward their promotion or financial advancement. Practically all of these residents served in the recent war as administrators. The energy, enthusiasm and effectiveness with which they availed themselves of the opportunity to re-enter clinical practice and to obtain specialty training was a very impressive demonstration of what incentive of this type means to men whose basic inspiration was from the beginning to be good clinicians.

PHYSICAL FACILITIES AND EQUIPMENT.—Each of the hospitals which I visited is housed in a group of modern, fully equipped buildings which, with one exception, are especially designed for the care of patients. In one instance, a former hotel has been converted to hospital uses, and the overflow of patients must be accommodated in adjoining buildings which have been modified to meet the demands of adequate hospitalization. Laboratory facilities in all of the hospitals visited are exceptionally good. The surgical, medical, radiological and other services are well equipped. Professional libraries containing an adequate variety of up-to-date books and periodicals are available. Excellent training aids are provided for lectures, seminars and conferences. A good beginning in the provision of research facilities conveniently located for the use of the professional staff has been made. The system and equipment for producing and maintaining clinical records is outstanding for there is enough recording equipment and stenographic help to permit the typing of complete histories, physicals and other data. The housing furnished unmarried interns and residents is equal to that available in our better civilian institutions. In view of the above factors, little doubt was left in the mind of the observer as to the thoroughness with which these institutions are prepared to conduct graduate medical training.

TEACHING STAFF.—The teaching staff is composed of two groups. First, there is the assigned staff consisting of the commanding officer, executive officer and the chiefs and assistant chiefs of the various services and sections. A majority of the heads of these services and sections are specialty board qualified and have had experience in military training techniques. Though their professional teaching experience is of short duration, they are demonstrating a high degree of adaptability to intern and resident training.

The second group, the attending staff, is composed of civilian consultants. The members of this group are board qualified experts who practice in the vicinity of the hospitals. In a majority of instances, they hold appointments on the faculty of nearby medical schools and university hospitals. Though they render part time service, they are responsible for close supervision of the care of patients as well as training programs. As observed at conferences and ward rounds, the instructor staff rendered service comparable to that ordinarily observed on university hospital services. The amount of time spent by both the duty and attending staff is considerably greater than that given to the house staff by corresponding groups in many private and municipal hospitals. This advantage, made possible by the payment of attending staff members for time given, explains, in part, the rapid progress made in developing internships and residencies of good grade, approaching the quality of the university teaching hospitals.

CLINICAL MATERIAL.—As mentioned above, an analysis of the available clinical material reveals that the amount and variety is equal to that of many of our university hospitals. For example, during the first six months of 1948, Fitzsimons General Hospital admitted 958 patients to the medical service, 960 to obstetrics and gynecology and 711 to surgery. Brooke General Hospital

admitted 3,761 to medicine, 1,113 to obstetrics and gynecology and 1,895 to surgery. Walter Reed General Hospital cared for 1,155 in medicine, 1,374 in obstetrics and gynecology and 554 in surgery. Oliver General cared for 1,997 in medicine, 2,883 in surgery, 1,815 in orthopedics, 399 in urology and 2,785 total anesthetics. All of these hospitals have a very active outpatient service operated largely by the interns and residents.

PROGRAM OF INSTRUCTION.—In conformance with the overall program established by the Surgeon General, each hospital has devised its individual plan in keeping with its peculiar situation. Within the general hospital plan, each service and section in which house staff members are trained, has developed its own detailed program for each of the years of training required by its respective specialty board. One hospital had evolved an excellent manual for guidance of the interns. While these plans emphasize teaching at the bedside, they also call for many formal conferences, seminars, literature reviews at journal clubs and the like. Attendance at all of these conferences is not mandatory, but all trainees are encouraged to attend as many of them as possible and time saved through aids in case recording and relief from routine laboratory work, enables them to be present at a large number. The interns and residents voiced the opinion that most of them are conducted on a high educational level and, therefore, they stimulate a desire to attend. The array of teaching exercises is quite elaborate and probably could not be carried out in such detail in a civilian hospital with their predominantly voluntary attending staffs.

Considerable attention is being given to the basic sciences but varies according to the opportunity and interest. In view of the two schools of thought concerning their presentation, the Army has attempted to follow both, emphasizing these basic factors at the bedside on every occasion, and by giving comprehensive review lectures and demonstrations by experts drawn from neighboring schools.

While the interns rarely have time for participation in research, they have ample opportunities to observe that being carried on at the hospital, both by the residents and by full time research personnel. Each installation which I visited was pursuing one or more major projects. In addition, the programs stipulate that each second year resident begin and complete a research project of either the clinical or laboratory type.

Due consideration is given to the need of providing experience in scientific presentation, public speaking and teaching experience for the members of the house staff. One hospital is conducting a series of seminars on these subjects in order to coach the interns and residents along these lines.

The overall teaching program is very comprehensive yet ample time is reserved to insure the patients receiving excellent care. In talking with patients at these hospitals, I found none who manifested any dissatisfaction or gave evidence of neglect. Obviously, full participation in the program requires more time than the ordinary working day, and evening hours are well occupied. Contrary to the idea which tends to prevail outside of Army circles, the interns

and residents in the hospitals which I visited were giving freely of their time and were working equally as hard as those in similar civilian institutions both for the benefit of those patients for whom they were responsible as well as for their own advancement. There appears to be a healthy spirit of friendly competition throughout the entire professional staff at each installation.

CONCLUSIONS

While my report appears to be most complimentary to the programs at the hospitals which I visited, I believe that fairness demands that the civilian medical profession be given the facts as I saw them as compared with the large number of similar institutions with which I am familiar. It is sincerely believed that these programs should be continued and improved. I also believe that if these programs are continued the Army will soon have a body of professional experts in whom we of the civilian profession may place confidence not only for the care of military patients but to furnish medical leadership in time of a national emergency.

Since this program, together with the measure of success it has thus far attained, has been a combined Army and civilian enterprise throughout its course, the civilian medical profession as well as the Army Surgeon General can be justly proud of their mutual effort to place this phase of military medical preparedness on a high level of excellence.

It is really surprising and worthy of great commendation that the leadership in both the Surgeon General's Office and in the individual hospitals has been able to accomplish so much in a relatively short time. Much remains to be done but the hard and self sacrificing effort being poured into the program along with the eagerness of all concerned to find possibilities for improvement, promise further advances all along the line.

State Support of Medical Education in New York

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The State of New York is officially engaged in the development of two new medical centers—one in Syracuse and one in Brooklyn. The story of this development forms the basis of this article.

Although New York has the highest ratio of physicians to population of any state in the Union (1 physician per 450 population), there are two great unmet needs which, acting together, have precipitated the state government into the field of medical education. The first of these is the tremendous demand for medical training on the part of New York students, particularly from the metropolitan area; and the second is the shortage of physicians in the rural areas. Since the state is balanced almost equally between residents of metropolitan New York and upstate residents, it is difficult to secure approval for expensive legislation unless representatives from both groups support the proposal actively. The passage in 1948 of a bill forming "The State University of New York," with specific authorization for the development of an upstate center and a metropolitan medical center, was brought about by a coalition of the legislators from each of these areas.

For many years, young men and women from the large cities have applied to medical schools for training in greater numbers than have the residents of smaller communities and rural areas. This situation has resulted in keen competition for the restricted numbers of places available. In no state have there been as many unsuccessful candidates as in New York. This situation was alleviated, to a certain degree, prior to World War II by the opportunities available to top quality students from this area in the medical schools of other cities. This, however, frequently imposed a kind of discrimination in favor of those who were financially able to afford the additional expense involved.

Following the cessation of hostilities in World War II, all the medical schools of the country were flooded by applications for admission. Each of the state and municipal schools was under obligation to the taxpaying citizens of the state to favor applicants who were bona fide residents of the state (or municipality). The private schools were under a similar, although not nearly so rigid, obligation to the groups from which they derived support. The net effect was to reduce the out-of-state openings available to the residents of New York.

The pressures developed as a result of the failure of large numbers of

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qualified premedical students to secure admission to medical schools led to charges of unfair discrimination. The state that had put a fair employment practice act into effect was in no mood to tolerate discrimination within its educational institutions. Demands which could not be ignored were made that opportunities be made available for these students. The demands ranged from reasonable requests that students with ability have equal opportunities in the schools in New York to fantastic requests for medical schools with 1,000 students per class to accommodate all who met minimal requirements.

It is necessary, at this juncture, to describe briefly the manner in which the State of New York had functioned with reference to the support of higher education. Historically, New York, like many of the original colonies, had developed strong private colleges and universities. Needs for general education at the college level were, for the most part, met by these schools and a state university had not been built. Likewise, private institutions had provided for the training of physicians.

The Board of Regents originally established the University of the State of New York as an administrative organization. It developed many specialized colleges, such as the Institute of Ceramics at Alfred College, the College of Veterinary Medicine and the School of Home Economics at Cornell University, junior colleges, teachers' colleges, the Maritime Academy, the College of Forestry at Syracuse University and others to meet specific needs of the people of the state. A total of 32 such colleges were built and supported with state funds. Several patterns of support were used. Some of the colleges were operated by the sponsoring university on a contract basis; others were governed by independent boards of trustees with direct subsidy of the cost of operation by the state and with minimal supervision by the sponsoring college; still others were totally independent of any other college or school and were responsible directly through a board of trustees to the commissioner of education of the State of New York. The Board of Regents, although vitally interested in these institutions, was concerned chiefly with the maintenance of standards of education at the secondary level.

This established pattern of support of special education by the state led to requests that the state expand into the field of medical education to meet the pressing demands already described. It is significant, however, that Governor Thomas E. Dewey considered this an appropriate time to make a study of the need for unifying and integrating the entire program of higher education within the state. As a consequence, in 1946, a group of outstanding citizens was appointed to form the "Temporary Commission on the Need for a State University," with Mr. Owen D. Young as chairman.

This commission explored the needs for expanded opportunities in medical education as well as in the other fields. Its findings with respect to problems of medical education were reported in a booklet entitled, "Education for the Health Services." The conclusions listed in that report are summarized as follows:

1.—The training facilities in New York State are inadequate to satisfy all the desires of qualified resident youth for professional education (in the field of health services).

2.—Economic barriers to enrollment in existing schools restrict the opportunities for many New York State residents.

3.—The favorable socio-economic status of New York State is reflected in a heavy demand for health services and indicates the ability of the State to train and support the necessary supply.

4.—The current rate of supply of health personnel fails in certain categories (particularly dentistry and nursing) to satisfy the effective demands of the people, and is incapable of meeting the optimum needs of the predictable future for medical, dental and nursing service.

5.—The regional health service and medical center plan would provide the basic conditions for improved patterns of professional education and health care throughout the State.

6.—The State has direct responsibility for the protection of the public health and the provision of sufficient educational opportunities for the needs of its people.

7.—The professional schools of New York State are unable, without the guarantee of continuous and adequate financial support, to expand their capacity, improve their teaching staffs, or participate more fully in the provision of community and regional health services.

8.—All states have recognized certain responsibilities in the provision of educational opportunities for their youth.

It was apparent that the need for physicians alone was not sufficient to justify the state's assuming financial obligation for the training of physicians. However, the medical care available in rural areas was such that a good case could be made and was made for developing an upstate regional health service and medical center plan. The obvious need for more dentists and nurses further supported the proposal for a medical center, rather than a medical school alone. This was a program which the upstate legislators could back wholeheartedly.

In commenting on the recommendation for the establishment of two medical centers, one in metropolitan New York and the other upstate, the commission reported:

"Many rural areas are suffering from a shortage of physicians and dentists. The additional medical facilities contemplated should have as a major objective the preparation of physicians and dentists for the rural areas where the need is most acute."

The report of the Temporary Commission also emphasized that public funds should be used for education only on condition that students be admitted to institutions in receipt thereof on the basis of individual merit and without regard to race, color, creed or national origin.

In 1948, the State Legislature passed a bill, which subsequently became law, creating the State University of New York to take over the educational units which were already supported by the state under the Board of Regents, to develop plans for meeting the higher educational needs of the future and specifically to "formulate plans and make recommendations for the establishment of two health and medical centers as part of the State University."

The bill establishing the State University of New York provided that the Board of Trustees could establish the medical centers by any of the following methods:

1. The acquisition, absorption or expansion of existing medical training facilities, or

2. The establishment of wholly new facilities or

3. The extension of financial assistance or grants to existing institutions pursuant to agreement for the expansion of facilities in such institutions.

A subcommittee of the Board of Trustees was appointed to study the whole matter of how the university should proceed with plans for establishing the medical centers. It consisted of Mr. Charles Garside, chairman, Mr. Arthur H. Dean, Mr. Norman S. Goetz, Mr. Earle J. Machold and Mr. Edward N. Scheiberling. Dr. Raymond B. Allen and the author were retained as medical consultants. Many experts in the field of medical education, particularly those in the New York area, gave freely of their time to discuss with the committee the problems which were involved in planning the location of the new medical centers.

A large number of cities throughout the state were anxious to attract one of these centers to their communities. The general populace of these communities viewed this as a means of obtaining the advantage of improved medical care locally and also as a means of significantly reducing the cost of medical education for the students of that locality. The physicians of these communities viewed this as a means of raising medical standards. The medical faculty in communities where such schools already existed viewed it as a means of bringing about the improvements which each of them was planning, and of transferring its almost intolerable financial burden to the strong shoulders of the state.

As a result, offers were made to the Board of Trustees by committees from many areas in which a medical school did not exist, the most important of which were Queens and the Bronx in New York City and Binghamton and Utica in the upstate area. Offers were made by the Long Island College of Medicine in Brooklyn, the School of Medicine of the University of Buffalo, the Albany Medical College and the College of Medicine of Syracuse University that their facilities be taken over completely by the State University of New York and be used as a nucleus for the development of a medical center.

It is significant that the medical committee of the Board of Trustees, after considerable discussion and in spite of strong representations from responsible

and disinterested sources, rejected the principle of financial assistance or grants to existing medical schools. The committee concluded that the establishment of a grant in aid program could not be undertaken simply as a stopgap arrangement, since it was of the opinion that a grant for one year carried with it a compelling moral obligation to continue the grant in succeeding years. In addition, it was thought that this program would not enable the university to develop the medical centers to their fullest extent and, finally, that the State University of New York could not extend such assistance to medical schools and at the same time deny it to other institutions of higher learning within the state.

Having eliminated one method for rendering aid, the committee was faced with the alternative either of building entirely new facilities or taking over existing schools. In considering the upstate situation, it was apparent that if the State University of New York medical center were to be located in Albany, Buffalo or Syracuse without absorbing, in each case, the school already located there, immediate competition would develop for clinical facilities and material, for the clinical faculty and, perhaps, even for community support. It was obvious that the privately supported school would be seriously handicapped and probably would be forced to cease operation. Accordingly, it was decided to consider the proposals from the three locations only in terms of incorporating the existing medical school into the State University of New York program in accordance with the offer received from each of these institutions.

There is a fourth upstate medical school, in Rochester, which did not approach the State University for state assistance. The resources of this school are so strong that it was the committee's view that location of a second school in the community would not immediately endanger the private institution. To enter into competition with the University of Rochester School of Medicine, however, did not appear to be in the best interests of the people of the upstate area, since the school is already effectively serving a broad area around Rochester.

Accordingly, the upstate situation soon became resolved into a choice between a new center at Binghamton or the absorption into the state university system of an existing school at Albany, Buffalo or Syracuse.

In the metropolitan area, there are two large boroughs without a medical school: Queens, with a population of 1,600,000, and the Bronx, with a population of 1,400,000. Brooklyn, with a population of 2,700,000, has one medical school, the Long Island College of Medicine. Here, the question involved not only a decision as to where to locate the medical center, but also whether the facilities should be developed anew or whether the one school which had offered its facilities should be taken over. Manhattan, with its four schools, was not considered as a logical site for the new medical center.

After an exhaustive study of the facilities available in each of the proposed locations with respect to clinical facilities, faculty, university affiliations, geographic position, relationship to centers of population and to transportation

facilities, the committee selected Brooklyn and accepted the offer of the Long Island College of Medicine, and in the upstate area selected Syracuse and accepted the offer of the College of Medicine of Syracuse University.

In explanation of the former decision it stated:

"The committee's decision to recommend adoption of the Brooklyn proposal has been predicated on the following considerations:

(a) The utilization of existing facilities is necessary if the State University is to provide any expansion in facilities for medical education in the near future, and such expansion for the metropolitan medical center is a primary and all important factor;

(b) The acquisition by the State University of New York of trained medical school faculty personnel and teaching hospital affiliations is a factor of the greatest value in the establishment of a State University medical center;

(c) The nature of the Brooklyn proposal is such that the State University may, by its adoption, enjoy the benefits to be derived from the absorption of an existing facility and at the same time not lose the benefits inherent in the subsequent establishment of wholly new facilities. . . .

"One of the most compelling factors in support of the Brooklyn proposal is, in the committee's view, the presence of a well-respected and co-operative faculty at the Long Island College of Medicine. The committee has repeatedly been advised that it would take ten years, or more, to obtain a faculty of equivalent standing if the state were forced to start entirely anew. Furthermore, the committee has also been advised that, if the State University were to reject the Brooklyn proposal, the college would be unable to hold many of these persons, the school's academic standards would inevitably be lowered, and the caliber of medical training at this school would in consequence decline.

"The committee feels that in accepting the Brooklyn proposal, the State University would benefit from the broad community relations already established by the Long Island College of Medicine. This would be an indisputable asset, and a sound foundation from which to plan the future development of the medical center."

In explanation of the latter decision the committee stated: "The Committee's decision to recommend the adoption of the Syracuse proposal has been predicated chiefly on the following considerations:

(a) The intrinsic requirements for the establishment of a medical center serving primarily the interests of the rural population of New York can be fulfilled with greater efficiency by the adoption of either the Albany or the Syracuse proposal than by the Buffalo proposal;

(b) The existing university affiliation and faculty resources are stronger at Syracuse than at Albany;

(c) The clinical facilities at Albany and Syracuse are such that the State University would have to construct an entirely new university hospital at either

location. Thus while the existing proximate clinical facilities at Albany are somewhat greater than those in Syracuse, construction of a university hospital at Syracuse would provide fully adequate clinical facilities for a medical center including a medical school of approximately 100 or more students per class.

(d) The geographic location of Syracuse is, from the standpoint of servicing the entire upstate area, preferable to that of Albany.

"In considering the primary objective of the upstate medical center, the committee was much impressed with the viewpoint expressed by the Temporary Commission and quoted earlier in this report that 'additional medical facilities contemplated . . . should have as a major objective the preparation of physicians and dentists for the rural areas where the need is most acute.'

"To establish a rural medical center which draws upon a broad area for its clinical material and which in turn spreads the benefit of its service over a wide area, the committee feels that the State University should establish such center in an area more centrally located than Buffalo. The two possibilities are Syracuse and Albany. In its decision to recommend the adoption of the Syracuse proposal in preference to that of Albany, the committee feels that the benefits to be derived from central location, outstanding university affiliation and excellent faculty at Syracuse are over-riding considerations."

COMMENT

This rather lengthy introductory description of the situation existing with respect to the entrance of the State University of New York into the field of medical education has been necessary to clarify its significance for the field of medical education as a whole.

This country currently is in the midst of a period of prosperity and expansion. The people of the United States are becoming more cognizant of the value of good medical care, and their prosperity has enabled them to demand quality medical care to a greater degree than ever before. The medical profession, as a whole, has been able to share in the general prosperity as a result of the increased demand for its services, and it appears that the increasing desire of young people to seek medical training is, in part at least, a reflection of the favorable economic status of members of the medical profession.

Caught between the increased demand for training and the increased demand for the services which its graduates can render, schools of medicine are not only unable to find a means for sharing in the general prosperity but are literally fighting for existence. They are being requested to provide improved medical training for larger numbers of students in the face of increased costs of operations and decreased income from endowments.

Tuition fees have been increased moderately, but not in proportion to the increased costs. Although it is quite possible that enough students could be found who could afford fees adjusted to the actual cost of training, the schools have shown admirable reluctance to seek this method for relieving their finan-

cial pressures. This reflects a social conviction that education is no longer a prerogative of the wealthy student. It is also a reflection of an educational conviction that intellectual ability of the level required for the professions is not plentiful and must be drawn from students of all economic levels.

It is to be expected, in view of the severe financial difficulties of our medical schools, that state governments should be increasingly aware of their responsibilities in the matter of providing funds. The needs of the people for medical care, and of young men and women for training in this field, are needs which cannot be ignored by their elected representatives.

In New York State, these factors came sharply into focus at the end of the war. More than that, the issues raised were such that a state university was developed where none had existed before. This is indicative of the concern with which the people of the state regard the availability of medical education and medical care. The two medical centers are being developed in response to what was considered a clear mandate from the citizens of New York not only for the training of physicians but more particularly as a center for the training of all types of health workers and as a center for the provision of the finest type of medical care.

The development of these centers is, in effect, an expression of the belief that the private medical schools of New York, outstanding as they are, are unable to respond to the need for expansion. The financial position of each of the schools is, for the most part, such that expansion is either impossible or fraught with great danger. It is no secret that the four schools who offered their facilities did so primarily out of economic necessity rather than out of a desire to transfer educational control to the state. The two schools which were not selected have a serious financial problem which remains unsolved. Those who view federal aid to medical education with distrust will find sympathy but little effective support from the many schools which find themselves in a similar financial plight.

Quite apart from the acute financial problem of maintaining medical education at a high standard, the medical schools are unable to meet adequately the problem of training auxiliary health personnel, such as dentists, nurses, medical technicians, social service personnel and others. This is an educational problem requiring complex affiliations with the university, social and public health agencies and hospitals. It would be grossly unfair to imply that the schools in New York are unmindful of these broad educational needs. Several of them, in fact, are leaders in these fields. Theirs is a quantitative deficiency rather than a qualitative one. It is a deficiency which the State University of New York hopes to remedy.

During the past five to eight years, North Carolina, Washington, California, Alabama and Utah have developed four year colleges of medicine. In that time, no new private medical school has been developed. Until recently, the Southwestern Medical School, which was organized in Dallas after Baylor University School of Medicine moved to Houston, could have been cited as

an example. Within the past few months, Southwestern has been taken over by the University of Texas, presumably on a basis similar to that used by the State University of New York.

State support of private medical schools by subsidy has been carried on for a great many years by Pennsylvania and Virginia. Several states with two year schools offer subsidies to four year schools which will accept their graduates for the final two years of training. There has been a serious proposal from a number of southern states to subsidize Meharry Medical College for Negroes on a cooperative basis.

The increasing recognition by state governments of their responsibility for medical education is a pattern which may well be the answer to the dilemma of the private schools. It is a pattern which has proved successful not only in maintaining high standards of training but in providing a method whereby the people of a state can adapt the use of tax funds to their own peculiar medical needs.

The Borden Award in Medical Sciences

In 1946 the Borden Company Foundation, Inc., established a Borden Award in Medical Sciences to be administered by the Association of American Medical Colleges. This Award consists of $1,000 in cash and a gold medal to be awarded in recognition of outstanding clinical or laboratory research by a member of the faculty of a medical school which is a member of the Association of American Medical Colleges. The Award in any year is made for research which has been published during the preceding five calendar years.

No person may receive more than one Borden Award for the same research, although he may receive a later Award for a different research project. If two or more persons who have collaborated in a project are selected for an Award, the gold medal and check is presented to the group, and the bronze replicas of the medal presented to each of the collaborators. The Association may refrain from making an Award in any year in case no person reports research of the quality deserving an Award.

Only one Award is made during any one year.

REGULATIONS REGARDING NOMINATIONS

1. Nominations may be made by any member of the faculty of a medical school which is a member of the Association of American Medical Colleges.

2. Five copies of each nomination should be forwarded to the Secretary of the Association together with five sets of reprints bearing on the investigation for which the nomination is made. The reprints will be returned if requested.

3. Nominations must be based on work published during the preceding five years by members of the faculties of the medical schools in the United States and Canada which are members of the Association.

4. The nomination should contain the academic and scientific history of the candidate and a reasoned statement of the basis for the nomination.

5. A nominee who fails to receive the Award may be nominated for the same work in a subsequent year. Nominations made for one year will not be carried over to a succeeding year but must be renewed if the candidate's work is to be considered during the succeeding year.

6. Nominations must be completed and in the hands of the committee before May 1, 1950.

Nominations should be sent to: Dr. Dean F. Smiley, Secretary, Association of American Medical Colleges, 185 North Wabash Avenue, Chicago 1, Illinois.

COMMITTEE FOR THE BORDEN AWARD IN MEDICAL SCIENCES: Brian Blades, Chairman, George Washington University; Chas. H. Best, University of Toronto; David Barr, Cornell University; Edward H. West, University of Oregon; Harry Smith, Columbia University.

Report of Medical Film Institute*

I. GENERAL SERVICES IN MEDICAL AUDIOVISUAL AIDS

A. The Medical Film Institute has become a growing focus of information on medical visual materials, within its limited resources and within the limited awareness of the profession of its existence. Telephonic and postal inquiries regarding film utilization have become increasingly numerous. Information to miscellaneous medical students, nursing and hospital groups has been dispensed. Information to producers and sponsors on new productions planned or in production has begun, despite the financial inability of the Medical Film Institute to inaugurate its already fully planned methodical information services.

B. Systematic rostering of production personnel has not yet been started. However, personnel interviews yielding audiovisual occupational data are accumulating. These are building the Medical Film Institute file of available and talented audiovisual persons in medicine.

C. Surveys of producer facilities, and assessments of producer competence are in process, in line with Medical Film Institute responsibilities to bring sponsors, producers and medical scientists together on an optimum basis.

II. CONSULTANT SERVICES

A. Medical school and independent physician producers, and many others, have asked production and utilization advice of varying kinds. A few of the interviews concerning the following persons and subjects are illustrative of the range of problems presented to the Medical Film Institute:

Dr. Thomas Almy, Cornell, consultation on a skill film on the technic of proctoscopy.
Dr. Albert Hyman, advice on final details of a film on experimental a heromatosis.
Dr. Alexander Adler, advice on a case record film on visual agnosia.
Dr. Julius Fuchs, review of films on experimental physical therapeutic methods.
Dr. Joseph Bunim, N.Y.U-Bellevue Medical Center, assistance on a case record film on Compound E.
Mr. Manfred Bowditch, Lead Industries Association, assistance on planning a film on lead poisoning.
Dr. Granville Larimore, N.Y. State Dept. of Health, films on nursing and narcotics.
Dr. Joseph Hirsch, consultation on medical films and film library facilities for Hebrew University Medical School, Jerusalem.
Dr. Joseph Schulman, Eastman Dental Dispensary, Rochester, advice on a dental film library.
Mr. Leo Wright, L.I. College, films on anatomy laboratory procedures.
Dr. Carl Wilbur, American Cancer Society, and Mr. Sol Feuerman of Audio Productions, audience sampling for a film on breast cancer.
Drs. John L. Norris and T. J. Curphey, N. Y. State Medical Society, advice on establishment of a film library.
Miss Catherine Linden, American Nursing Association, advice on film reviewing methods.

B. Preliminary contacts have been made with representatives of various pharmaceutical houses, toward establishment of possible consultant services. Discussions have been held with persons from Smith, Kline and French, Lederle, Merck, Squibb, Becton-Dickinson, Harrower, Cutter, Sharpe-Dohme, Davis & Geck. Systematic presentation of Medical Film Institute services is planned through a discussion before the American Drug Manufacturers Association Medical section in Chicago on November 2nd.

III. CONTRACT SERVICES

A. The $20,000 grant from the National Cancer Institute for joint production (with the National Film Board of Canada) of a film on cancer research has been implemented as follows: film screenplay and storyboards are completed; animation is under way with a Medical Film Institute consultant assigned; shooting on location is under way; a Life Magazine coverage and story has been arranged; a Canadian-American premiere has been outlined for February; a distribution-utilization plan has been outlined, to begin in March when prints are available; and plans are in preparation for an American theatrical release in March, if feasible; Canadian theatrical release is assured.

B. The $1,000 contract for review and selection of professional medical films for the U.S. Information Service, U.S. Dept. of State, has been completed. 70 films were reviewed,

*This report was presented at the Sixtieth Annual Meeting of the Association of American Medical Colleges held in Colorado Springs, Colorado, November 7-9, 1949.

appraised, and detailed statements sent to the Dept. of State for their special purposes.

C. The $9,000 contract for a survey of the audiovisual programs, facilities, and personnel of the U.S. Public Health Service has been completed up to the point of preparation of the written report. This is in process of preliminary drafting.

D. The $31,250 grant from the Office of Naval Research, U.S. Navy, has been received, for production of a report film on human development. The grant was made possible by transfer of funds from the Bureau of Medicine and Surgery. Story treatments, preliminary storyboards, and production preliminaries have occurred; Dr. Arnold Gesell, principal scientific consultant, has been assisting with the synthesis; Mr. Bernard V. Dryer, Medical Film Institute consultant, has been supervising story development; Dr. V. F. Bazilauskas and Mr. C. L. Welsh will be responsible for production.

IV. PRODUCTION PRE-PLANNING

A. Work with the Conference of Professors of Preventive Medicine has continued. A conference to discuss a film series in industrial medicine is being planned. Production of the Disaster Series has been pushed with authorities in Washington and Ottawa. Two of the clinical syndrome films have been discussed with prospective sponsors.

B. Preliminary contacts have been made with the American Physiological Association; with the American Psychiatric Association and the Group for the Advancement of Psychiatry; with the American Heart Association; with the Association of American Dental Schools. With all groups the attempt has been made to stimulate methodical programming of audio-visual production.

V. PROJECTS UNDER DEVELOPMENT

A. Cataloging as a basic operation of the Medical Film Institute is being developed under the categorical approach. By varying mehods the interest in and support of the American Heart Association, the National Institute of Mental Health and the Mental Health Film Board, the N.Y. State Dept. of Health, the Department of State, and others are being enlisted. Support will be by grant or contract.

B. Exemplary films representing the basic types of motion pictures are being sought, for Medical Film Institute demonstration production. One such film is a report film on the work and methods of Dr. Wilton Earle, of the National Cancer Institute, in his pioneering methods in tissue culture in vitro.

C. The U.S. Navy Bureau of Medicine and Survery-sponsored monograph on "The History of Motion Pictures in Medicine," is approaching completion. The Medical Film Institute has recognized the vital importance of this inclusive study, and has in a small way subsidized the last months of completion of the manuscript and illustrations. The Institute has, at the suggestion of Capt. Robert V. Schultz, begun to investigate the problem of publication of the monograph outside of the government.

D. The project on Film Evaluation Research (Yale Project) has been temporarily suspended.

E. Three papers are in preparation for publication: 1) "The Types of Medical Films," 2) "The Cataloging of Medical Films," 3) "The Problem of 'Dated' Medical Films." Papers 1. and 2. are being drafted by Dr. Adolf Nichtenhauser, with Medical Film Institute assistance.

F. Publicity and reports of various kinds have been issued from time to time, for the Association of American Medical Colleges Journal, and for other sources.

G. Moves to organize an American Scientific Film Association have been made by the Medical Film Institute, to bring medicine into proper relationship with the other sciences, and with world scientific film activities.

VI. PERSONNEL DATA

The Medical Film Institute has carried along its manifold activities through the aid of a number of able consultants. Mr. Bernard V. Dryer has been an indispensable principal in the Cancer, Public Health Service and Human Development projects, Dr. Adolf Nichtenhauser has assisted as consultant in many of the developmental phases of Institute growth. Mr. Ralph Foster, Executive Officer of the National Film Board of Canada, was loaned to the Medical Film Institute by the Film Commissioner of Canada, Hon. Ross McLean, to assist in the Public Health Service survey; Mr. George Stoney, writer-director of the Southern Educational Film Production Service, assisted briefly in the Public Health Service Survey; Mr. Warren Cheney and Mr. John Ross Roberts performed special roles in the Survey. Dr. V. F. Bazilauskas has acted as special consultant in the film on cancer research.

Mr. Warren Cheney and Mr. John Ross Roberts terminated their consultantships on June 30th.

(Signed) David S. Ruhe, *Director*

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Medical Colleges Assailed

On January 9, the American Conference of Academic Deans met in Cincinnati in conjunction with the annual meeting of the Association of American Colleges. Sometime during the meeting, medical education and medical schools were criticized severely on the basis of what cannot be designated otherwise than misinformation. The *New York Times* of January 10, under the byline of Benjamin Fine, published the following news item.

EDUCATION GROUP ASSAILS DOCTORS

Deans' Committee Says Medical Profession Limits Students in 'Petrillo Economics'

CINCINNATI, Ohio—An unusually sharp attack on the medical profession of this country, rarely before heard in academic circles, came today from a committee of prominent college leaders, studying pre-professional education.

The nation's doctors were accused of using "Petrillo and Fishbein economics" in keeping down the number of students admitted to medical schools.

The reference was to James C. Petrillo, president of the American Federation of Musicians, AFL, and Dr. Morris Fishbein, former editor of the Journal of the American Medical Association.

Thousands of qualified pre-medical students are not admitted to medical schools, even though the nation needs more doctors, the committee maintained.

The charges were made before the American Conference of Academic Deans, meeting here in conjunction with the annual convention of the Association of American Colleges. One thousand college presidents, deans and university administrators are attending the three-day sessions, considered among the most important in higher education.

A year ago the American Conference of Academic Deans appointed a committee, consisting of the deans of Wayne, Ohio State, Northwestern and Kentucky Universities to study the problems involved in admission to the medical colleges. The report, presented here this afternoon, assailed the medical profession for its "short-sightedness" in not keeping pace with the nation's health needs.

Part of Resolution Dropped

When the committee presented its resolution, a number of college officials sprang to the defense of the doctors. Many delegates were upset over the effect the resolution would have upon the medical profession. The conference eliminated this portion of the resolution:

Annually several thousand students fully qualified in training, personality and temperament are denied admission to the professional training of their choice. This set of conditions constitutes a most serious threat to the continued health and well-being of the American people."

One of the delegates exclaimed: "A good many people in the medical profession do not believe this to be true. If we adopt the resolution we will create a lot of antagonisms."

Another speaker warned that "we are trying to needle the medical profession to see your view. This statement might be offensive enough to ruin any hope for cooperation."

As finally approved, the resolution read: "Be it resolved, that the American Conference of Academic Deans calls upon the Association of American Medical Colleges to place immediately a higher priority on training more new doctors of medicine.

"And further, be it resolved, that the American Conference of Academic Deans offers its assistance to the survey of medical education, now being sponsored by the American Medical Association and the Association of American Medical Colleges, to the end that a sounder program of preparation for entrance into the medical colleges may be achieved."

"Just Can't Get In"

According to Dr. William S. Guthrie, dean of the College of Arts and Sciences, Ohio State University, college students face strict rationing of careers in medicine, dentistry and veterinary medicine without respect for the country's need. He said that reports from seventy-five of the nation's seventy-nine medical schools disclosed 92,460 applications for the fall term of 1949, representing 25,000 individual students. There were 6,387 places to fill in the freshmen classes.

"Many of those rejected have good academic records and possess the readily acknowledged personal qualifications," Dr. Guthrie said. "No matter how eligible, three-fourths of the applicants just can't get in."

Dr. Guthrie urged the medical profession to expand its facilities to admit a minimum of

1,500 additional students annually. This could be done, he said, by utilizing the medical colleges to full capacity, as was done during the war years. During five years the schools trained 7,214 extra doctors.

His report, presented to the conference, contrasted the number of medical students today with the number in 1905. In 1949, he brought out, seventy-nine medical schools had an enrollment of 23,670 students, with a graduating class of 5,094. In 1905, there were 160 medical schools in this country, with a student enrollment of 26,147 and a graduating class of 5,606. During this period the population has virtually doubled while the number of students in medical schools has decreased, Dr. Guthrie pointed out.

Moreover, in 1905 college students totaled 150,000, contrasted to today's 2,500,000. In 1905, the ratio of medical students to college students was one to five; today it is one to 100.

The medical profession is largely dictated by "Petrillo and Fishbein Economics," Dean Simeon E. Leland of Northwestern University charged. The number of students is deliberately kept down, he implied, in the interests of the profession and not of society.

"Medicine is the only profession in which the element of competition comes only at the beginning," he asserted. "We have no assurance that the people who have the requirements that get them into medical schools are the ones that will be the best all the way through."

He called for more competition in medicine, both in school and later in practice. For the most part, students who are admitted are retained. Those who drop out amount to less than 5 per cent.

"We need both more and better doctors," he declared, taking issue with Dean Willard C. Rappleye of Columbia University's medical school. "If we had more, we would have better doctors. There would be more opportunity for medical research and competition would weed out the weaker ones as it does in other professions."

On January 15, the *Times*, published the following letter written by Dr. Joseph C. Hinsey, dean of Cornell University Medical College, president of the Association of American Medical Colleges and chairman of its Executive Council.

TO THE EDITOR OF THE NEW YORK TIMES:

I am writing regarding the article "Educators' Group Assails Doctors," written by Benjamin Fine in the Jan. 10 issue of THE NEW YORK TIMES. This was a report from the American Conference of Academic Deans held in Cincinnati. The Committee of Academic Deans, consisting of Simeon E. Leland of Northwestern, Victor A. Rapport of Wayne University, William S. Guthrie of Ohio State University and M. M. White of the University of Kentucky, did not consult the official representatives of the Association of American Medical Colleges and did not invite representatives to attend the meeting where these serious charges were made. However, your account of the meeting indicates that medical education had some friends at court.

The data quoted by Dean William S. Guthrie regarding statistics for the present first-year class are incorrect and unreliable, because he refuses to stick to established facts, but has depended upon estimates made early in the year before the admission data are completed. He is quoted as stating: "There were 6,387 places to fill in the freshmen classes." The facts are that there are 6,986 students enrolled in the present first-year class, an increase of 577 students over the 6,409 students of the previous year or 9 per cent.

In making a comparison with the era of 1905, I wonder if Dean Guthrie advocates a return to the "diploma mills" and the same 160 medical schools which were in operation then with a very low standard of performance? Does he recommend mass education in medicine as it is presented in a number of other fields of our institutions at present? Medicine requires individualized instruction and cannot be expanded at will as is possible in some of our fields of learning.

DANGERS OF ACCELERATION

Our experience during World War II has convinced the vast majority of medical educators that acceleration of program as suggested by Dean Guthrie at the Cincinnati meeting leads to a lowering of standards in the over-all performance of a medical college. At least some of the academic deans do not appreciate what a problem we have in maintenance and recruitment of staff for medical training. New medical schools and enlarged enrollments in existing schools require additional staff which is not available in many fields of medicine for reasons that I shall not go into here.

The mortality rate of less than 5 per cent (3 per cent was quoted in another report) attributed to Dean Simeon E. Leland of Northwestern does not represent the facts. It has varied from 10 to 15 per cent in the over-all. Our medical schools are all working hard to reduce this figure because with a reduction of 5 per cent in the attrition rate, the increased output in our existing schools would be equivalent to the establishment of three or four new medical schools.

The fact that our present attrition rate is low, relative to education in other fields, would lead us to believe that our methods of selection must have some validity. Our medical schools expend at least four or five times as much as they receive from each student. Such was not the case in 1910, when tuition fees met 70 per cent of the cost of educating medical students. Each medical school must be reasonably certain of the potential ability of each entering student because it does not have funds to waste on training unsuitable material.

For the past twenty years the number of physicians has increased more rapidly than has the population of the country, as Dean Willard C. Rappleye of the College of Physicians and Surgeons of Columbia University has so effectively pointed out. It seems to me that his experience in medical education qualifies him as a better judge than Dean Leland, who has taken issue with him. We expect that this increment will continue with the establishment of new medical colleges.

Expansion of Schools

Since the beginning of World War II new medical colleges or expansions of former two year schools of basic medical sciences have been developed in Alabama, Washington, California, North Carolina, Texas, Utah and Illinois. Others are being considered in Mississippi, Florida, West Virginia, North Carolina and elsewhere. Dr. Victor Johnson, director of the Mayo Foundation, has shown that there is an annual increment (excess of graduates over deaths of physicians) of about 2,000. "This increment will increase with the evolutionary growth of medical schools, and will continue to exceed the annual increase in the population at large."

It seems unnecessary to deny the undignified implications made against medical education in statements attributed to Dean Leland. He must realize that medical education is in the hands of medical educators who are just as devoted to their field as he is to his. Sixty-eight of our seventy-eight approved schools are divisions of universities. The Association of American Medical Colleges, now sixty years old, is independent of domination of any outside agency. The Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association have assisted and cooperated in the formation of new schools where there has been a promise of a high standard of performance, but we shall continue to resist ill-conceived expansion which does not meet accepted standards.

Modern medical educators are interested in quality as well as in quantity and have an appreciation of what is involved when new students are added. We have been expanding our enrollment, as is indicated in the enrollment of the present first year along lines we deem sound, but apparently insufficient to meet the demands of Dean Guthrie.

In spite of the advances made in medical education following the report of Abraham Flexner in 1910, it has seemed important to take an inventory of existing facilities and programs.

A survey of medical education is now being made under the supervision of a committee appointed under the joint auspices of the Association of American Medical Colleges and the council on medical education and hospitals of the American Medical Association. President Alan Valentine of the University of Rochester is chairman of the committee. An advisory council representing various segments of our society is being formed at present. Dr. John E. Deitrick has been at work during the past year as director of this survey and he has a full-time staff working with him. In this comprehensive survey, attention is being given to the preparation for the study of medicine in our colleges and universities, to the work of our medical colleges at the undergraduate level and to the graduate and post-graduate training.

Object of Survey

The broad objectives are to evaluate the present programs and to determine the future responsibilities of medical education in its broadest aspects. We are indebted to this conference of academic deans for its offer of assistance in our study of the preparation for medicine at the college and university level. There has been considerable discussion in our survey committee and plans are now being formulated.

Medical education is not perfect. No one knows this better than medical educators. We are trying to keep our house in order, as is evidenced by the survey. We have been the targets of politicians, at times even of the medical profession, and now of our colleagues: some, and I hope just a few, of the academic deans. Medical education is the foundation stone of our national health and the public must appreciate that, without sound undergraduate medical education of high quality, we cannot maintain and advance our program of medical research and medical care.

Joseph C. Hinsey

New York, Jan. 11, 1950.

The following letter, written by Dr. Walter Bloedorn, dean of the George Washington University School of Medicine, former president of the Association of American Medical Colleges and now a member of its Executive Council, was published in the *Washington Evening Star*, January 19, 1950.

To the Editor of The Star:

I am writing you regarding the editorial "We Need More Doctors" published in the January 11, 1950, issue of The Evening Star. This editorial is based on statements reportedly made at the American Conference of Academic Deans held in Cincinnati on January 9, 1950.

Although the editorial admits that "such a charge may be grossly unfair", it cites a statement which it asserts "lends plausibility to the charge" that the medical profession and the medical schools are "protecting" physicians "from the competition of outsiders" in "keeping down the number of new students" by "extraordinary limitations placed upon admissions to our medical schools"—"wholesale exclusion of potentially good students"—"no matter how eligible many of them may be."

The idea is too naive to warrant the characterization of "grossly unfair."

The Association of American Medical Colleges' Headquarters' Office in Chicago reports that for the year 1948-49 there were 6,514 freshmen enrolled in the medical schools. The number enrolled in 1949-50 was 6,887 which represents an increase of 373 over the previous year.

It is true that more students apply for admission to medical schools each year than are or can be admitted. The process, however, is one of selection and not of "exclusion." The fact is that any one, no matter how ill prepared or ill suited to undertake the long and difficult study of medicine, can apply. The fact is that thousands of those who do apply are wholly unqualified.

The careful selection of students for the practice and study of medicine is one of the most important functions of the medical school. Students are selected for admission on the basis of demonstrated ability to do creditable work in premedical studies, tested medical aptitude, character, and motivation. The sole purpose of this careful selection is to assure, as nearly as possible at the outset, the training of physicians in whose hands patients would be willing to place the health and often the lives of themselves and their families.

Factors Controlling Admissions

The actual number of students admitted to the medical schools each year is determined, not by an arbitrary limit set in conspiracy by the medical profession and the medical schools, but by several more fundamental, if less sensational factors:

1. The capacity of the physical plant of the individual medical school; lectures and laboratory work cannot be conducted in the public parks.
2. The number of qualified teachers available to instruct the students; students cannot teach each other.
3. The number of hospital beds available for clinical instruction; students cannot learn medicine from books alone.

The physical plants and the teaching staffs of the medical schools are limited by budgets. Tuition fees cover but a fraction of the cost of medical education. At the present time the Nation's medical schools require additional financial support even to maintain existing facilities and faculties at the present standards.

The Nation's medical schools, at the moment, are training medical students at the limit of their capacity. The accelerated program in effect during World War II, in the opinion of most medical educators, lowers the standard of performance of the medical schools.

The number of students admitted to medical schools could, of course, be doubled overnight if standards regarding selection of students, adequacy of equipment, availability of qualified teachers, and sufficiency of clinical facilities were thrown overboard.

It is unlikely that the critics of the present system of medical education would willingly consult a physician trained under such circumstances.

The editorial also implies criticism of "the long years of costly study, the added years of internship, and the widespread tendency to concentrate on a specialty instead of on general practice." If any adequate substitute for long years of study and internship can be suggested which will provide well-trained physicians, the thousands of men now undergoing the hardships and sacrifices of this discipline undoubtedly will welcome them.

It would, of course, be possible to establish diploma mills to turn out thousands of "doctors" and additional thousands of "specialists" with "training" limited to short periods of instruction.

One Doctor for Every 710 Persons

The Star's editorial criticizes the medical schools chiefly, because, it states, "there simply are not enough doctors to cope with the health needs of our greatly increased and still growing population." "There exists," the editorial states, a "doctor shortage"—"especially in the non-urban areas." The fact is there are more doctors in the United States in proportion to the population than in any other country in the world—with the sole exception of Palestine, where many refugee physicians have gone from Europe.

There is one doctor for every 710 persons in the United States.

As to the needs of our increasing population, the fact is that during the past 20 years the number of physicians has increased at a greater rate than the population as a whole.

Since the beginning of World War II, new medical colleges or expansions of former two-year schools of basic medical sciences have been developed in Alabama, Washington, California, North Carolina, Texas, Utah and Illinois. Others are being considered in Mississippi, Florida, West Virginia, North Carolina and elsewhere.

It is true that there is a relative shortage of physicians in some rural areas. This shortage exists independently of the relative abundance of physicians in the Nation as a whole, however. Merely increasing the number of students admitted to medical schools will not solve that problem.

There are today many small communities without newspapers or colleges, and in these communities there are no editors or college professors. Similarly there are communities without hospitals, health centers, laboratories, and many other facilities necessary for the practice of modern scientific medicine; for this reason, there are communities without physicians. The solution to this problem is not the wholesale turning out of ill-trained physicians. The solution is to be found more likely in furthering local, State, and national programs for the establishment at well selected points of clinics, health centers, and hospitals to provide facilities which will make it possible

and attractive for physicians to practice good medicine in these areas.

Medical education is not perfect. No one knows this better than medical educators. Medical education is the foundation of our national health and welfare. The importance of the medical schools to the Nation is far out of proportion to their number, their size, and their costs of operation. It is important that undergraduate medical education be maintained at a high level of quality.

WALTER A. BLOEDORN, M. D.

(Note: The Hon. A. L. Miller, of Nebraska, a member of the House of Representatives, on January 20, 1950, read Dr. Bloedorn's letter at a regular session of the House. The letter is published in the *Congressional Record* of that date, page A480.—Ed.)

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Report of President of Harvard University

In his annual report to the Board of Overseers of Harvard University, Dr. James B. Conant, speaking about professional schools, says:

"Every university which includes a school of medicine is in more or less serious trouble financing this portion of its activities. Harvard is no exception. The factors which have led to the present serious crisis in medical education in the United States are obvious. The drastic reforms in medical education during the second decade of this century carried with them by implication a rapidly rising cost of medical education for a long period of years. As the basic medical sciences expanded and became more and more closely associated with the clinical departments, the expenditures increased. What was planned after World War I inevitably led to greater expenditures not only then but many years later; young men added to increase the staffs grew up and their salaries increased, likewise their scientific ambitions and the budgets for research expenditures. The dollar prosperity of the 1920's masked what was destined to be financial trouble for medical schools aiming to be the best; the lowered costs in the thirties and the paralyzing effect of the depression on the budgeting ambitions of even ardent scientists postponed the storm. Then, after the Second World War, the deluge came, precipitated by the rapid decline in the value of the dollar and the increased labor costs of maintaining and operating laboratories and hospitals. As a consequence the nation is faced with an educational problem of the gravest sort, far too serious to be solved by the efforts of a few universities by themselves.

"As a first step toward improving our own financial situation in the Medical School we have re-examined our policy in regard to appointments. Profiting by the ten years' experience of the Faculty of Arts and Sciences, we have been able to work out a long-term schedule of coming appointments. The adoption of a plan prevents sudden decisions to make permanent commitments without anyone's foreseeing how the financial resources are to be found over the years to make good the promise of a life appointment. Unless the experience in the College is entirely misleading, a firm and detailed personnel policy not only gives financial stability but increases the probability of making excellent appointments. The plan need not be static, and in the case of the medical faculty includes the addition of several new permanent appointments. For this purpose new endowment will be needed.

"The School of Public Health is likewise in a precarious position unless new funds are shortly forthcoming. The present high standing of this School, which is largely due to the efforts of the present Dean who came to us at the close of the war, requires a large budget for research. The importance of investigation and education in this field requires no comment. All well informed citizens are aware that along the road of science as applied to public health and preventive medicine lies the hope of improving the health of wide segments of the population of this nation. The friends of the School have been active in the effort to raise funds; on a year-to-year basis they have been temporarily successful. But greater financial stability must be attained here as in the School of Business Administration.

"During the coming year we shall expect to publish a comprehensive description of the immediate Harvard needs in medicine, public health, dentistry, and the allied sciences. In preparation for a vigorous statement of our case we have not only examined our personnel policy and tightened our plans, but we have examined Harvard's relation with the seven privately endowed hospitals with which we have cooperated for many years. As these institutions have their own financial problems and as almost all the Harvard professors of the clinical subjects are associated with one or another of these hospitals, it is essential that the liaison be close. In these days of cramped budgets, and with our new policy in regard to appointments, more formal arrangements are required than hitherto. I am glad to report that a standing committee will provide a continuous exchange of information between the trustees of the hospitals on the one hand and the Harvard Corporation on the other. As the first point of this closer formal cooperation, we have drawn up a rather elaborate statement of the personnel policy, primarily as it applies to those holding Harvard titles and working in the hospitals. Without the affiliated hospitals the Harvard Medical School could not function. The success of the Boards of Trustees of these institutions over the years in obtaining support and providing more facilities has been a benefit to this important phase of the work of the University. In the years ahead, I believe we must look forward to even closer cooperation and to some degree of mutual long-range planning, bearing in mind the

changing needs of society which have been so evident in the last twenty years. This planning must include a careful study by Harvard of the problems raised by the rapid developments in the medical sciences and of what its role should be in contributing to their solution. In participating in these plans Harvard is reviewing its own part in order to determine what should be its particular contribution in research and teaching. As in the case of the two-year college, the apparently obvious course of embarking on mere expansion may not prove on examination to represent the wisest use of our resources."

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Committees of Association of American Medical Colleges

COMMITTEES ON INTERNSHIPS AND RESIDENCIES: John B. Youmans, Chairman, Vanderbilt; Coy C. Carpenter, Bowman Gray; L. R. Chandler, Stanford; Harold C. Leuth, Nebraska; John McK. Mitchell, Pennsylvania; Wesley Spink, Minnesota; Reginald Fitz, Harvard; Francis J. Mullin, Chicago; Frode Jensen, Colorado; D. W. Baird, Oregon; Warren T. Brown, Baylor; Maxwell E. Lapham, Tulane; Stanley Dorst, Cincinnati; Roy R. Kracke, Alabama; W. A. Bloedorn, George Washington; Jean A. Curran, Long Island.

COMMITTEE ON STUDENT PERSONNEL PRACTICES: Carlyle Jacobsen, Chairman, Iowa; George Packer Berry, Harvard; Francis J. Mullin, Chicago; Richard H. Young, Northwestern; John Deitrick, Survey of Medical Education; D. Bailey Calvin, Texas.

COMMITTEE ON AUDIOVISUAL EDUCATION: W. A. Bloedorn, Chairman, George Washington; Joe Markee, Duke; R. P. Walton, South Carolina; Clarence de la Chapelle, New York University.

COMMITTEE ON BORDEN AWARD: Brian Blades, Chairman, George Washington; David Barr, Cornell; Harry Smith, Columbia; Charles H. Best, Toronto; Edward West, Oregon.

EDITORIAL BOARD FOR JOURNAL OF THE ASSOCIATION: Lowell T. Coggeshall, Chairman, Chicago; Alan Chesney, Johns Hopkins; W. C. Davison, Duke; James Faulkner, Boston; Andrew Marchetti, Georgetown; Robert A. Moore, Washington; John McK. Mitchell, Pennsylvania.

COMMITTEE ON FINANCIAL AID TO MEDICAL EDUCATION: Joseph C. Hinsey, Chairman, Cornell; George Packer Berry, Harvard; W. A. Bloedorn, George Washington; A. C. Bachmeyer, Chicago; Ward Darley, Colorado.

COMMITTEE ON PREPAREDNESS FOR WAR: Stockton Kimball, Chairman, Buffalo; Dayton Edwards, Cornell; Melvin A. Casberg, St. Louis; George Packer Berry, Harvard.

PROGRAM COMMITTEE FOR 1950: Dean F. Smiley, Chairman, AAMC; Charles F. Wilkinson, New York University; Joseph C. Hinsey, Cornell; John L. Caughey, Western Reserve.

COMMITTEE ON PUBLIC INFORMATION: Franklin D. Murphy, Chairman, Kansas; Ralph Rohweder, National Society for Medical Research; Dean F. Smiley, AAMC; John M. Stalnaker, AAMC; Vernon W. Lippard, Virginia.

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Borden Award for 1949

The Committee on Borden Award of the Association of American Medical Colleges selected Dr. Fuller Albright, associate professor of medicine, Harvard Medical School, as its official nominee for the 1949 Borden Award in Medical Sciences "For his extraordinary original and monumental contributions to the understanding of the metabolism of bone and other tissues and their relation to the renal and endocrine factors which control them. Dr. Albright is distinguished as one of the few investigators who insists on formulating his ideas into a hypothesis at the conclusion of each phase of his research, rather than being content with reporting data. The brilliant and often humorous style of his scientific papers and addresses has done much to raise the standards of American medical literature."

College News

University of Texas Medical Branch

A two year residency in general practice is to be established in St. Mary's Infirmary under the direction of Dr. Emil Klatt, assisted by members of the staff of St. Mary's Infirmary who are also members of the faculty. Dr. Weldon Stephen will be in charge of the Division of Surgery; Dr. Edward Schwab of the Division of Medicine, Dr. Francis Garbade of the Division of Pediatrics, Dr. Martin Towler of the Division of Neuropsychiatry, and Dr. J L. Jinkins of the Division of Obstetrics and Gynecology. Applicants must be licensed to practice in one of the United States, and must have completed a year of an approved internship. Applications should be directed to the Administrator or to Dr. Emil Klatt, St. Mary's Infirmary, Galveston, Texas.

Preliminary plans for a proposed Student Union have been prepared. The plans include provision for lounges, play rooms, cafeteria, auditorium, office and conference rooms, and rooms for the accommodation of alumni and visitors. The Student Union will be a memorial to alumni and faculty members who have lost their lives in the two World Wars. The Alumni Association has inaugurated a campaign to raise $250,000 toward the building. The Galveston Chamber of Commerce has also pledged support of the project, and the Sealy and Smith Foundation of Galveston has donated land for the building.

Miss Herta Meyer, research associate of the Institute of Biophysics of the University of Rio de Janeiro, has been a visitor during the past two months in the Tissue Culture Laboratory under the direction of Dr. C. M. Pomerat. Miss Meyer has developed important new research techniques for the study of intra cellular parasitism. Dr. P. K. Knoefel, professor of pharmacology at the University of Louisville School of Medicine, was a guest worker during the past month in the pharmacology laboratories. Dr. Rita Montalcini, formerly of the University of Turin, Italy, will be a guest worker for several weeks in the laboratory of neurochemistry under the direction of Dr. W. W. Nowinski. Doctor Montalcini will demonstrate methods of embryonic transplants for study of nerve growth and development. Dr. L. A. Crandall, Jr., Director of Research of the Miles Laboratories, Elkhart, Indiana, gave a series of special seminars on physiology of the alimentary tract January 24-25.

Special research laboratories have been provided for the division of plastic and maxillo-facial surgery under the direction of Dr. T. G. Blocker, Jr. Dr. R. I. Stout will be associated with Dr. Blocker in research studies on tissue repair and body fluid control in severe burns. These have been provided by the Sealy and Smith Foundation.

Howard J. Curtis, Ph.D., professor of physiology at Vanderbilt University School of Medicine will give a series of special seminars March 25th and 26th. His subjects will be "Conduction in Nerve and Muscle" and "The Biological Effects of Nuclear Radiations."

Dr. Ernest Sachs of Yale University Medical School, will give the annual James Greenwood Lecture April 10, 1950. His subject will be "The Evolution of Surgery of Brain Tumors."

W. L. Moody, Jr., Galveston banker, has constructed a convalescent hospital facility in Galveston with a capacity of 100 beds. This has been offered to the Board for Texas State Hospitals and Institutions as a training center for selected patients with cerebral palsy. If the facility is accepted for this purpose, arrangements have been made for cooperation with the staff of the Medical Branch for medical care for the patients involved, and for use in teaching and research.

Appointments: Kenneth P. McConnell, Ph.D., assistant professor of biochemistry and nutrition; Dr. Mabel Wil-

kin, clinical associate professor of psychiatry; Dr. Austin Foster, assistant professor of neuropsychiatry; Dr. Ira J. Jackson, instructor in neurosurgery, and Dr. E. Ivan Bruce, Jr., assistant administrator of the Galveston State Psychopathic Hospital.

Members of the family of Mr. H. H. Weinert of Seguin, Texas, former member of the Board of Regents of the University of Texas, have given $12,500 to be added to the H. H. Weinert Endowment Fund for Cardiovascular Research. Research studies supported by this fund are conducted by Dr. George H. Herrmann, professor of medicine and Director of the Cardiovascular Research Laboratory.

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University of Minnesota
Medical School

A bequest of $482,304 from the estate of the late Silas McClure, Minneapolis businessman who died last February 16 at the age of 83, was received to be used for medical research.

A continuation course in gastrointestinal diseases will be presented March 6-8, 1950. The course is intended for general physicians and will emphasize the diagnosis and management of disorders of the gastrointestinal tract. Among the subjects to be considered in the course will be a symposium on peptic ulcer, a discussion of the functional bowel syndrome, and the psychosomatic aspects of gastrointestinal disorders, the x-ray diagnosis of gastrointestinal diseases, and a clinic on gastrointestinal disorders in pediatrics. Faculty for the course will include members of the staff of the medical school and the Mayo Foundation.

A symposium on hypertension will be presented on September 18-20, 1950, in honor of Drs. Elexious T. Bell, Benjamin J. Clawson, and George E. Fahr. Drs. Bell and Clawson retired from the department of pathology June, 1949, and Dr. Fahr will retire in June, 1950, from the department of medicine. This symposium in honor of these men is appropriate inasmuch as all three had special interest in this disease. The symposium will bring to the University distinguished scientists from the United States and abroad. Support for the symposium has been provided by the Variety Club, the Mayo Foundation and the University of Minnesota.

Dr. Donald C. Balfour, director emeritus of the Mayo Foundation for Medical Education and Research, received the University of Minnesota's "Builder of the Name" medal February 16, at a special Charter Day convocation highlighting the third annual University of Minnesota Week to be observed throughout the state February 12 to 18.

A continuation course in pediatrics will be given April 10-12, 1950. This course is intended for physicians specializing in pediatrics and will be devoted to disorders of metabolism and endocrine function. Distinguished visiting physicians who will participate as faculty members for the course are Dr. Daniel C. Darrow of Yale University School of Medicine, and Dr. George M. Guest, Children's Hospital, Cincinnati, Ohio. The remainder of the faculty for the course will be made up of clinical and full-time members of the staff of the Medical School and the Mayo Foundation.

A continuation course in dermatology will be given March 27-29 for doctors who are engaged in general practice. Emphasis will be placed on the diagnosis and management of common skin disorders.

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University of Tennessee
College of Medicine

The College is conducting a series of conferences in six North Mississippi cities to help practicing physicians diagnose certain types of cancer. Eight members of the faculty serve as instructors for the conferences: Dr. Harwell Wilson, chief of the Division of Surgery and surgeon-in-chief to John Gaston Hospital, Dr. Robert M. Pool, Dr. Morton J. Tendler and Dr. Ralph R. Braund, associate professors of surgery, Dr. Milton Adams and Dr. C. E. Gillespie, assistant professors of surgery, Dr. William T. Black Jr., instructor and Dr. Philip C. Schreier, associate professor of obstetrics and gynecology.

The Mississippi Chapter of the American Cancer Society and the Mississippi State Medical Association are sponsoring the conference with the co-operation of the University of Mississippi. The conferences are open to any practicing physician in North Mississippi. A small fee is charged.

Dr. Mary Frances Poe has been appointed assistant professor and head of the department of anesthesiology. Dr. Robert P. Conger has joined the staff as instructor in biochemistry. Dr. Conger is assigned to research in the Division of Pathology and Bacteriology and will work with others to develop a simple serological test for the early diagnosis of cancer.

The Department of Chemistry of the School of Biological Sciences, University of Tennessee, is accepting applications for graduate teaching fellowships for the academic year 1950-1951. The fellowships are open to students who will be candidates for the master's degree or the doctorate in biochemistry. Appointments are for 10 months and are renewable. First year stipends are $1,000 for fellows holding the bachelor's degree and $1,500 for fellows holding the master's degree. Tuition fees are remitted. Applications, including transcript of college work, personal data, and a recent photograph, should be sent to the Dean of the School of Biological Sciences, University of Tennessee, Memphis, by April 1, 1950.

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Western Reserve University, School of Medicine

By the will of Mr. Crispin Oglebay, trustee since 1935, a substantial portion of the estate, which is in excess of $1,000,000, will be given to the School of Medicine and University Hospitals. The entire residuary estate to be known as the Crispin and Kate Oglebay Fund, was left to the Cleveland Foundation with the proviso that one-half is to be used for Western Reserve University, of which amount three-fourths is to be given to the support of the School of Medicine and University Hospitals to help the institutions "maintain their positions of leadership in the medical world."

Mrs. John H. Hord has accelerated the payment of charitable bequests totaling more than $3,000,000 in the will of her late husband. Through this action the School of Medicine received income from $2,300,000 before the end of 1949.

Also benefiting in the release of the funds are the University Hospitals, which will receive $100,000 for endowment, and the Babies and Childrens Division of the University Hospitals, receiving $100,000. Among the several other legatees is the Benjamin Rose Institute, which is completing plans for a 60-bed hospital for chronic illness. Two hundred thousand dollars was left to the Institute by Mr. Hord.

The gift will be used, first, to establish the John H. Hord professorship of medicine, which will be held by the Director of Medicine in Lakeside Hospital and the Head of Medicine in the medical school. Secondly, the funds will be used to meet one of the School's most urgent needs, that is, for salaries for attracting and holding outstanding men for the faculty.

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Woman's Medical College

March 11, 1950, will mark the 100th anniversary of the founding of the Woman's Medical College of Pennsylvania.

Dr. Eva Fernandez Fox was appointed Acting Medical Director of the Hospital of the College, October 1, 1949.

The Kate Hurd Mead, Class of 1888, Fund Lectures on History of Medicine, will be continued at the Philadelphia College of Physicians under the auspices of the Section on Medical History. The first lecture was delivered January 13: "Medical History in Medical Words," by Dr. O. H. Perry Pepper, professor of medicine University of Pennsylvania School of Medicine. The second lecture was delivered February 13: "The Pathology of Genius," by Dr. W. R. Bett, of London, England. The third lecture will be delivered April 14: "Woman in American Medicine," by Dr. Richard H. Shryock, Wm. H. Welch professor of the history of medicine, the Johns Hopkins University.

Professional appointments: Dr. Miriam Clarke, assistant professor in physiological chemistry; Dr. Mary E. Maxfield, associate professor of pharmacology.

Resignations: Dr. Florence S. Jenney, assistant professor of pathology; Dr. James A. Lehman, associate professor of surgery; Dr. Richard H. Shryock, special lecturer in medical history.

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University of Chicago
Medical School

Dr. Paul E. Steiner, professor of pathology, has been appointed to the National Advisory Cancer Committee of the U. S. Public Health Service. Dr. E. S. Guzman Barron, associate professor of medicine, recently attended a symposium of High Altitude Studies held in Lima, Peru. Dr. Barron was appointed an Honorary Professor in the Medical School of Lima. Dr. Paul Cannon, professor and Chairman of the Department of Pathology, gave a lecture, December 5th, at the College of Medicine of the State University of Iowa. He also gave the Sigma Xi lecture at Iowa State College. Dr. Leonidas Marinelli has been appointed research associate with the rank of assistant professor. Dr. Marinelli is also on the staff of the Argonne National Laboratory. Dr. Leon O. Jacobson, associate professor of medicine, has been appointed Special Consultant to the U. S. Public Health Service as a member of the Hematology Study Section of the National Institute of Health. Dr. W. H. Taliaferro, Chairman and professor of bacteriology and parasitology, was recently awarded the Mary Kingsley Medal by the Liverpool School of Tropical Medicine, in recognition of his contributions to tropical medicine.

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New York University
Bellevue Medical Center

A March of Dimes grant of $17,200 will make possible the continuation of attempts to devise a method of diagnosis for polio. Heading the research project will be Dr. Robert Ward, professor of pediatrics.

Medical College of Virginia

PROMOTIONS: Dr. Samuel A. Anderson, Jr., associate professor of pediatrics; Dr. Emily Gardner, assistant professor of pediatrics; Dr. Herbert C. Lee, associate professor of clinical surgery; Dr. Geoffrey T. Mann, associate professor and head of the department of Legal Medicine; Dr. William E. Pembleton, to professor and head of the department of Anesthesiology; Dr. Allen Pepple, associate professor of clinical dermatology and syphilology; Dr. Eric C. Schelin, assistant professor of obstetrics; Dr. Henry C. Spalding, associate professor of obstetrics; Dr. Elam C. Toone, Jr., associate professor of medicine; Dr. Edwin D. Vaughan, assistant professor of otology, rhinology and laryngology; Dr. Lawther J. Whitehead, professor of clinical radiology, Dr. W. C. Winn, professor of clinical obstetrics. Dr. Joseph R. Kriz, associate professor of pathology and assistant professor of clinical pathology; Dr. Simon Russi, assistant professor of pathology and clinical pathology; Dr. Thomas W. Murrell, Jr., assistant professor of clinical dermatology and syphilology.

The College has received a gift of $400,000 to be used to establish the A. D. Williams Memorial Clinic Foundation.

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Marquette University
School of Medicine

Dr. Frederick A. Stratton, a volunteer teacher for 43 years and director of the department of general surgery since 1934, was awarded the honorary title of professor emeritus.

Dr. Carl W. Eberbach has been named clinical professor and director of the department of general surgery succeeding Dr. Stratton.

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Tulane University School of
Medicine of Louisiana

Dr. Kathleen Young has been appointed assistant professor of clinical psychiatry; Dr. Henry E. King, assistant professor of psychiatry and research psychology; Dr. John P. Fox, appointed professor of epidemiology.

Northwestern University
Medical School

The University has received a gift of almost $100,000 from Dr. Anna Ross Lapham, first woman professor of the Medical School. Dr. Lapham, who is an assistant professor of obstetrics emeritus, presented the gift to the department of obstetrics and gynecology to be used for research, scholarships and loans. Dr. Tom D. Spies, professor of nutrition and metabolism and chairman of the department, received the Orden de Carlos Manuel de Cespedes decoration created in 1926 in honor of Carlos Manuel de Cespedes, first president of Cuba. It is given to a Cuban or a foreigner who has done outstanding work of a humanitarian nature for the Cuban people.

A gift of $750,000 has been received to establish the Irving S. Cutter Memorial Professorship in medicine. It will also provide for an assistant professorship.

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Long Island College of Medicine

Professor Joaquin V. Luco, of the Catholic University, Santiago, Chile, has been appointed visiting professor of physiology. Dr. Luco is a distinguished representative of South America biological scientific endeavor. From 1937-1939, he held a John Simon Guggenheim Fellowship for study at Harvard University Medical School. From 1944-1945, he again visited the United States as a Rockefeller Foundation traveling fellow. In the past year, he has held a Guildmiester Fellowship for study at the National Institute of Cardiology in Mexico City. His work has chiefly been in the field of neurophysiology.

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University of Washington
School of Medicine

APPOINTMENTS: Drs. Clement A. Finch and William M. Kirley, associate professors of medicine. Dr. Finch was a member of the Harvard faculty, Dr. Kirley of the Stanford faculty and head of the chest department in Stanford University Hospital.

St. Louis University
School of Medicine

A grant of $30,000 from the David P. Wohl Foundation of St. Louis will be used toward the establishment of a Wohl Memorial Institute of Experimental Surgery. The grant will be used to build quarters for the surgical unit of the Institute, and a fifth floor to house the unit will be added to the new wing of the Medical School. The Institute will be devoted to experimental work in the field of surgery and will be utilized by various departments of the school and the staffs of Fermin-Desloge and St. Mary's Hospitals.

Dr. Henry Pinkerton, head of the department of pathology, delivered the Wolbach Lecture at Harvard Medical School in January.

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University of Kansas
School of Medicine

Eleven weeks of training in the field of rural medicine will become a prerequisite for graduation under a new policy. Senior students will spend this time as observers in the offices of general practitioners in Kansas towns of under 2,500 population. Thirty-nine preceptors, chosen from a list of 200 doctors submitted to the school by the Kansas Medical Society, will provide board and room for the students in return for their assistance. A student will not be allowed to practice until he has received his license. At the end of the 11 weeks, the preceptor will make a written report to the school covering the student's interest and the evaluation of his capabilities.

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University of Tennessee
College of Medicine

The University has purchased land for a new Children's Hospital, which will be sponsored by Le Bonheur, women's social and welfare organization. The 100 bed hospital will provide equipment and facilities for advanced therapy not now available in Memphis. As estimated $1,870,000 will be spent in construction.

Emory University School of Medicine

September 15, 1949, the Grady Clay Memorial Eye Clinic was officially opened. It is situated in the Grady Memorial Hospital and functions as its eye clinic. It is a joint enterprise of the hospital and the School of Medicine. Facilities have been provided for the study of eye pathology, and an eye bank for corneal transplants is now in process of being established. The Director is Dr. Mason Baird, assistant professor of ophthalmology and Dr. Morgan B. Raiford is clinical and research Director. The entire project operates in close cooperation with the department of ophthalmology. The clinic is partially financed by friends and former patients of Dr. Grady E. Clay, deceased, who was professor of ophthalmology and chairman of the department.

PROMOTIONS: Dr. F. Phinizy Calhoun, Jr., to professor and Chairman of the Department of Ophthalmology; Dr. Alton V. Hallum to professor of clinical ophthalmology.

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University of Illinois College of Medicine

The Ralph Arthur Raclin Memorial Fund for research in endocrinology and allied fields has been established by a gift in the amount of $25,000 from Mr. and Mrs. H. L. Raclin. The fund will be used for research in endocrinology and allied fields under the direction of Dr. Willard O. Thompson, clinical professor of medicine.

Dr. Julius B. Richmond has been promoted to the rank of professor of pediatrics.

Stanley W. Olsen, assistant director of the Mayo Foundation has been appointed dean, succeeding Dr. John B. Youmans, who returned to Vanderbilt University as dean, March 1.

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Hahnemann Medical College

Dr. Axel K. Olsen of Sayre, Pennsylvania, has been appointed professor of neurosurgery.

Jefferson Medical College

With the collaboration of the Surgeon General of the U. S. Army, the first course in Medical Aspects of Atomic Energy is in progress at Jefferson. The course, consisting of eighteen lectures and demonstrations for third-year students, is aimed to serve as a pilot for introducing similar special courses in the other medical colleges.

This is part of the evolving nationwide plan of the Defense department and the National Security Resources Board to better prepare physicians for the organization of medical services in the event of atomic disaster.

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Louisiana State University School of Medicine

Fred G. Brazda, Ph.D., has been promoted to professor and head of the department of biochemistry. Roland A. Coulson, Ph.D., has been appointed associate professor and Dr. Thomas Hernandez, assistant professor of biochemistry; Dr. Louis A. Monte, clinical professor of medicine; Dr. Walton R. Akenhead, Dr. John H. Seabury, Dr. Oscar Blitz and Dr. Joseph A. Weilbaecher, Jr., clinical associate professors; Dr. Harry E. Dascomb, assistant professor, Dr. Homer J. Dupuy and Dr. Carl H. Rabin, clinical assistant professors of medicine.

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Stanford University School of Medicine

A grant of $42,350 in March of Dimes funds will enable Stanford scientists to attempt to chart the damage done by polio virus to the human body. Dr. Harold K. Faber, professor emeritus of pediatrics, will direct the work, which will be carried on at the medical school in San Francisco.

Stanford will present a postgraduate conference in clinical ophthalmology March 27 to 31. Registration will be open to physicians who limit their practice to the treatment of diseases of the eye, ear, nose and throat. Registration will be limited to thirty.

University of Arkansas
School of Medicine

APPOINTMENTS: Willis E. Brown, professor of obstetrics and gynecology and Head of the Department; Lloyd D. Seager, professor of physiology and pharmacology and Head of the Department; James G. Dickson, associate professor of pathology; Morris Dumoff and Alan G. Pipkin, associate professors of bacteriology and parasitology; Edward L. Rushia, associate professor of anesthisiology and Head of the Department; Alexander Earle, assistant professor of pediatrics.

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University of California
Medical School

Dr. James M. D. Olmsted, professor and chairman of the division of physiology, has been awarded the French Academy of Sciences' Binoux prize in the history and philosophy of science. Dr. Dermott Brownrigg Taylor, of London, was appointed associate professor of pharmacology, and Dr. Ralph Hawkins, of Mill Valley, was appointed lecturer in anatomy.

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Chicago Medical School

APPOINTMENTS: Dr. Edward F. Rosenberg, assistant professor of medicine; Dr. Samuel I. Kaufman, assistant professor of ophthalmology. Dr. Frank C. Lawler has been appointed a member of the Board of Trustees.

Dr. John J. Sheinin, dean, has been elected president of the school. He will continue to serve as dean until his successor is selected.

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University of Utah
School of Medicine

APPOINTMENTS: Dr. James F. Bosma, formerly assistant professor of pediatrics at Minnesota, professor and Head of the department of pediatrics; Dr. Leonard H. Taboroff, assistant professor of psychiatry and pediatrics and director of the new Utah Child Guidance Center.

University of South Dakota
School of Medicine

A grant of $4,400 has been received from the U. S. Health Service, to continue a study of pathological changes resulting from nutritional deficiencies in animals by Dr. R. L. Ferguson, professor of pathology, Dr. Charles Schwartz, research associate professor of biochemistry, and Dr. E. B. Scott, assistant professor of anatomy. The grant will aid also in carrying on studies of nutritional deficiencies relating to tumor or cancer growth.

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Bowman Gray School of Medicine

Dr. J. Robert Andrews, former director of radiology at Good Samaritan Hospital, West Palm Beach, Florida, has been appointed visiting professor of radiology and director of the department of radiology.

Dr. Jerry K. Aikawa of the department of medicine received $3,000 from the American Heart Association for research in rheumatic fever.

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Southwestern Medical School
University of Texas

Dr. Carl A. Moyer, Dean to succeed Dr. W. Lee Hart, who will retire August 31, 1950. Dr. Moyer will contine as professor of surgery. Dr. A. J. Gill, professor of surgical pathology and Associate Dean.

Dr. Charles Ashworth, professor of pathology and Chairman of the Department. Dr. E. E. Muirhead, professor of experimental pathology.

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Albany Medical College

Dr. Robert W. Graves has joined the faculty as professor of neurology in the department of psychiatry and neurology.

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Wayne University College
of Medicine

Dr. Gordon H. Scott, professor of anatomy and acting dean since 1948, has been named dean.

Medical College of the State of South Carolina

By action of the Board of Trustees of the College, Dr. Kenneth M. Lynch was named President and Dean of the Faculty. Dr. Bernard Metz has been appointed assistant professor of physiology; Dr. William H. Carmon resigned as assistant professor of pathology.

Dr. Cyrus O'Driscoll will retire at the end of the present academic year after fifty years of service to the college.

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College of Medical Evangelists

The annual Postgraduate Assembly of the College will be held on the Los Angeles campus of the medical school March 12, 13 and 14. The three day Assembly is intended primarily to contribute to the professional interests and needs of the general practitioner.

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University of Pennsylvania School of Medicine

Dr. John P. Hubbard has been appointed professor of public health and preventive medicine and Chairman of the Department of Public Health and Preventive Medicine.

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University of Wisconsin Medical School

A course in gastroenterology will be given March 27-31. Registrations should be made with Dr. Robert C. Parkin, 418 North Randall Ave, Madison 6.

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Stritch School of Medicine, Loyola University

Dr. James J. Smith, dean, has resigned. Dr. John F. Sheehan, professor of pathology, has been appointed acting dean.

Washington University School of Medicine

A convocation, cornerstone-laying marked the celebration February 21 of the 50th anniversary of the School of Medicine, and the 100th anniversary of the birthday of Robert Somers Brookings, whose philanthropy made possible expansion of the university at the turn of the century. The cornerstone of the new cancer research building was laid by Harry Brookings Wallace, president of the university corporation. Dr. Leonard Scheele, Surgeon General of the U.S. Public Health Service, spoke on cancer research.

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Medical College of Alabama

Dr. Champ Lyons, associate professor of surgery at Tulane University has been appointed professor and chairman of the department of surgery. Dr. Lyons will replace Dr. J. M. Mason, who now holds the rank of professor emeritus.

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Tufts College Medical School

In December, Tufts moved into new quarters at the New England Medical Center which consists of a group of hospitals and research laboratories where medical students receive clinical training.

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McGill University Faculty of Medicine

Dr. G. Lyman Duff has succeeded Dr. Frederick Smith as dean. Dr. Donald S. Fleming succeeds Dr. J. F. McIntosh as secretary.

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University of Manitoba Faculty of Medicine

Dr. Lenox G. Bell, associate professor of medicine succeeds Dr. A. T. Mathers as dean of the Faculty.

General News

National Foundation for Infantile Paralysis

The Foundation is offering fellowships to physicians for one academic year of study leading to a Master of Public Health degree at a school of public health approved by the American Public Health Association. Eligibility requirements include United States citizenship, graduation from a Class A school of medicine, completion of an internship of not less than one year, license to practice medicine in one or more states, and sound health. Financial benefits are flexible and will be arranged according to individual needs. Candidates will be selected competitively by the Committee on Fellowships in Public Health. In accepting a fellowship each recipient must agree to work as a public health officer in a state or local health department in the United States or its territories for at least two years.

Additional information and applications may be obtained from Professional Education Division, The National Foundation for Infantile Paralysis, 120 Broadway, New York 5, New York.

The Foundation is also offering one to three year clinical fellowships in physical medicine to physicians who wish to prepare for certification by the American Board of Physical Medicine. Eligibility requirements include United States citizenship, graduation from a Class A school of medicine, completion of internship of not less than one year, license to practice medicine in one or more states, and sound health. Fellowships are limited to those of 40 years of age or less. Financial benefits are flexible and will be arranged according to individual needs. Candidates will be selected competitively by the Committee on Fellowships in Physical Medicine, composed of members of the profession certified by the American Board of Physical Medicine.

In accepting a fellowship each recipient must agree to practice as a specialist in physical medicine in the United States or its territories for a minimum of two years, and must have completed three years of clinical study. Both of these requirements are necessary to qualify for Board certification.

Additional information and applications may be obtained from Professional Education Division, The National Foundation for Infantile Paralysis, 120 Broadway, New York 5, New York.

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University Microfilms

One of the most pressing problems facing all types of libraries today is that of providing adequate space for a constant flood of publications. Periodicals pose an especially difficult problem because of their bulk and number. Microfilm makes it possible to produce and distribute copies of periodical literature on the basis of the entire volume in a single roll, in editions of 30 or more, at a cost approximately equal to the cost of binding the same material in a conventional library binding.

Under the plan, the library keeps the printed issues unbound and circulates them in that form for from two to three years, which corresponds to the period of greatest use. When the paper copies begin to wear out or are not called for frequently, they are disposed of and the microfilm is substituted.

The microfilm is in the form of positive microfilm, and is furnished on metal reels, suitably labeled. Inquiries concerning purchase should be directed to University Microfilms, 313 N. First Street, Ann Arbor, Michigan.

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Medical College Admission Test

The Medical College Admission Test, required of applicants by a number of leading medical colleges throughout the country, will be given twice during the current calendar year, Saturday, May 13, and Monday, November 6, at more than

300 local centers in all parts of the country. The Association of American Medical Colleges, through its Committee on Student Personnel Practices, recommends that candidates for admission to classes starting in the fall of 1951 take the May test.

The MCAT consists of tests of general scholastic ability, a test on understanding of modern society, and an achievement test in science. No special preparation other than a review of science subjects is necessary. All questions are of the objective type.

Application forms and a Bulletin of Information, which gives details of registration and administration, as well as sample questions, are available from premedical advisers or directly from Educational Testing Service, Box 592, Princeton, N. J. Completed applications must reach the ETS office by April 29 and October 23, respectively, for the May 13 and November 6 administrations.

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New Use of TV in Medical Education Revealed by Remington Rand Inc.

A revolutionary new method of applying television to medical teaching has just been announced by Remington Rand Inc., manufacturers of Vericon, a system of closed-circuit television. With the new technic, the visual images of various internal organs of the body can now be televised for group study, without resorting to surgery.

Developed by William L. Norvell, manager of Remington Rand's television department, the system was demonstrated for the first time on Thursday, December 6, during the Third Annual Clinical Session of the American Medical Association in Washington, D. C. The demonstration, which was witnessed by a large audience of doctors, engineers and newsmen, was presented by Mr. Norvell in collaboration with Dr. Roy L. Sexton, of Washington, a nationally known authority in the field of gastroscopy.

Those present in the auditorium of Gallinger Memorial Hospital that evening saw the interior of the stomach of a living patient televised for the first time in medical history. It was made possible by a special optical link devised by Mr. Norvell and interposed between the eyepiece of a standard gastroscope and the pick-up tube of the television camera.

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Sterling-Winthrop Research Institute

The 5,000 year-old symbol associated with Imhotep, Egyptian God of Medicine, has been chosen as the emblem for the Institute. Called the "ankh," the symbol consists of a tau cross with an additional top part in the form of a loop or stirrup. It was usually represented as held in the right hand of the deity. "Ankh" means "life" or "soul" in Egyptian. It was the sign of enduring life and was carried by the God and conferred upon royal favorites as a symbol of divine knowledge of healing and as a key to wisdom. The emblem is set in turquoise blue mosaic in the main entrance foyer of the new building. The predominant color tone of the new building will be this turquoise blue because the ankh was usually studded with these jewels or was painted blue with powdered turquoise. Efforts are being made to get a statue of Imhotep from Egypt. Imhotep lived during the reign of Pharoah Zoser of the Third Dynasty, circa, 2980 B.C., who built the famous "step" pyramid of Sakkara. According to medical papyri, Egyptian science attained its full flower during that period. The Greeks later called Imhotep "Imouthes" and identified him with their god of healing, Esculopius. During the period of Greek supremacy, Imhotep's temples were the centers of medical teaching.

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Veterans Administration Films

The Veterans Administration offers to loan to educational institutions and interested persons in the medical profession, without cost, except return postage, the following films:

SURGICAL APPROACH TO SCAPULO-HUMERAL JOINT: Color; sound; 20 minutes.

HYDROTHERAPY PROCEDURES FOR NEUROPSYCHIATRIC PATIENTS: Black and White; sound; 20 minutes; 16 mm.

JOURNEY BACK: EDWARD LUNDQUIST; HEMIPLEGIC: Black and White; sound; 27 minutes; 16 mm.

YOU CAN HEAR AGAIN: Black and White; sound; 20 minutes; 16 mm.

Address Veterans Administration: Department of Medicine and Surgery, Washington 25, D.C.

U. S. Public Health Service

The Communicable Disease Center in Atlanta, Ga., will offer four laboratory courses in 1950. The first course will be given March 20-24; the subject: diagnosis of enteric diseases. Subjects for the other three courses are: tuberculosis and Rickettsial diseases—August, November, December. For further information contact the Center, 291 Peachtree Street, Atlanta.

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Educational Exchange Activities*

The firm friendship between the United States and other American Republics is due, in part, to the individual friends that we and the Latin-American countries have made through the exchange-of-persons program. By exchanging representative individuals, the United States and the other countries have given each other a chance to know the good and the bad about each other.

The great majority of exchanges involve adults in positions of active leadership—professors, specialists, technicians engaged in research, mature leaders in important fields such as journalism and the professions, leaders of labor organizations, and others whose impact upon the attitude of their respective countries will be immediate as well as long continued.

The accompanying table gives data concerning grants made in 1949 under the Public Law 402 program and the program under the Fulbright Act (the latter financed by foreign currencies).

TO THE UNITED STATES

Area	Authority	Students	Teachers	Professors	Leaders & Specialists	Research Scholars	TOTAL
American Republics	Pub. Law 402, 80th Cong.	197	7	7	62	.....	[3]273
Europe	Pub. Law 584, 79th Cong.	318	108	35	.....	84	545
Near East & Africa	do	[1]16	.....	.....	.....	8	24
Far East	do	[2]72	1	4	.....	16	93
Total		603	116	46	62	108	935

FROM THE UNITED STATES

Area	Authority	Students	Teachers	Professors	Leaders & Specialists	Research Scholars	TOTAL
American Republics	Pub. Law 402, 80th Cong.	46	.....	20	13	.....	[3]79
Europe	Pub. Law 584, 79th Cong.	543	111	55	.....	71	780
Near East & Africa	do	10	14	8	.....	9	41
Far East	do	19	.....	19	.....	18	56
Total		618	125	102	13	98	956
Grand Total		1,221	241	148	75	206	1,891

[1]In addition 275 grants were made to foreign nationals to study at American schools in their own country, i.e., Burma and Greece.

[2]In addition 83 grants were made to Chinese nationals to study in American schools in China.

[3]Total grants made in American dollars 352 (273+79).

*Excerpts from Second Semiannual Report on Educational Exchange Activities by Chairman Harvie Branscomb, U. S. Advisory Commission on Educational Exchange.

Book News

Physiology of Heat Regulation and the Science of Clothing

Edited by L. H. Newburgh, M.D., Professor of Clinical Investigation, University of Michigan Medical School. W. B. Saunders Company, Philadelphia. 1949. Price, $7.50.

The editor and fifteen associates prepared this most interesting book at the request of the Division of Medical Sciences of the National Research Council. The purpose to secure information which would assist the armed forces to meet climatic problems inasmuch as wars are fought in all kinds of weather not as formerly in selected favorable weather. Medical officers presented the problems and civilians sought the solution in their laboratories or in military laboratories. Practical field tests offered the opportunity to decide whether the suggestions made had military value. This book is an attempt to describe the responses of the heat regulatory mechanism to the whole range of climatic conditions encountered on the earth's surface and how life can be preserved under the most adverse conditions and establishes the limit of this capacity. The solution is not final. Studies are being continued. The book is divided into two parts: I.—Human Response to the Climatic Environment. II.—Clothing, a Thermal interesting reading.

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Essential Urology

By Fletcher H. Colby, M.D., Assistant Clinical Professor of Genitourinary Surgery, Harvard Medical School. The Williams & Wilkins Company, Baltimore. 1950. Price, $8.

Presents the important facts of the embryology, anatomy, physiology and diseases of the genitourinary organs, with special stress on microscopic pathology. Only accepted methods of treatment are described. The text, prepared, mainly for medical students, is based on the teaching in urology at the Massachusetts General Hospital. Part I gives the story of the development and structure of the organs; part II, instructions for examination of the patient; part III, diseases and treatment,—all in eleven chapters.

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Electrocardiograph

By Louis Wolff, M.D., Associate in Medicine, Harvard Medical School. W. B. Saunders Company, Philadelphia. 1950. Price, $4.50.

Presenting the fundamental aspects of electrocardiography and their application to clinical interpretation, prepared especially for medical students. Concise, understandable and interesting. Well illustrated.

Questions: Medical State Boards and Answers

By R. Max Goepp, M.D., Professor of Medicine, Woman's Medical College, and Harrison F. Flippin, M.D., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania. W. B. Saunders Company, Philadelphia. 1950. Price, $7.

Since 1908, this book has been the "friend in need" of many medical students and physicians facing a state licensure or other examination. Every one, young and old, who is interested in the study of medicine will find this a handy book to consult in odd hours. It will serve well as a refresher. It is arranged under subject headings, such as anatomy, pathology, medicine, surgery, hygiene, etc. The chapter on medical jurisprudence, although short, is well worth reading. The seventy page index gives speedy direction to any topic sought.

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Clinical Pathology

By Benjamin B. Wells, M.D., Professor of Medicine University of Arkansas School of Medicine. W. B. Saunders Company, Philadelphia. 1950. Price, $6.

Here are assembled and reorganized the common data of clinical pathology with which every physician should have some faraliliarity. The material has been arranged exactly as the physician uses it. Beginning with a clinical situation, the applicable laboratory procedures are selected and their contribution to the problem discussed. The text comprises nine chapters, the first covering infectious disease; the next five covering systems; then metabolic and endocrine disorders; clinical laboratory studies in surgery and clinical laboratory studies in obstetrics. An appendix covers laboratory aids in symptom diagnosis. Coverage is complete.

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A Textbook of Neuroanatomy

By Albert Kuntz, M. D., Professor of Anatomy, St. Louis University School of Medicine. ed. 5. Lea & Febiger, Philadelphia. 1950. Price, $8.

Presents the fundamental anatomy of the human nervous system and sufficient physiologic data to associate structure and function in a dynamic pattern. The present text has been revised, some of it rewritten and new data incorporated with some rearrangement. A brief account of the circulation of the spinal cord and the brain and a short account of conditioned reflexes has been added. It is essentially a student text. More than 300 illustrations clarify and supplement the text.

Diseases of the Heart

By Charles K. Friedberg, M.D., Lecturer in Medicine, Columbia University. W. B. Saunders Company, Philadelphia. 1950. Price, $11.50.

Stresses the pathologic physiology of cardiac disorders, including the pathogenesis or mechanism of symptoms and signs of cardiac failure, of angina pectoris and myocardial infraction and of the various manifestations of the individual cardiac diseases. The utilization of quantitative measurements in diagnosis is emphasized. Certain subjects of predominant importance are presented as individual monographs. Ten chapters are devoted to circulatory failure, eight to diseases of the coronary circulation, three to rheumatic fever and rheumatic heart disease. Bacterial endocarditis is discussed extensively, also congenital heart disease. Cardiac catheterization, oxygen and pressure studies, angiocardiography are discussed. Diagnosis and treatment of remediable cardiac conditions are emphasized. The illustrations shown are helpful. Thousands of references to the literature should be welcomed by those who are fond of that sort of thing.

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The Study of Language

By Mario Pei, Associate Professor of Romance Languages, Columbia University. J. B. Lippincott Company, Philadelphia. 1950.

Language, the most wonderful tool of civilization. This book is far more interesting than any "best seller" novel. It gives the basic information about language which is an absolute necessity for good education, and it does the job in a most entertaining manner. It is in six parts. Part I: the History of Language. Part II: The Constituent Elements of Language. Part III: The Social Function of Language. Part IV: The Modern Spoken Tongues. Part V: Problems of Language Learning. Part VI: An International Language. It is better than a "who dunit." This is an exciting intellectual adventure. It is a book which every one will enjoy because it gives so much information and it is written so that any one—even without a college education—can understand it and learn from it. A very unique book.

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Handbook of Medical Management

By Milton Chatton, M.D., Instructor in Medicine; Sheldon Margen, M.D., Clinical Instructor in Medicine and Henry D. Brainerd, M.D., Assistant Clinical Professor of Medicine and Pediatrics, University of California Medical School. University Medical Publishers, Palo Alto, California. 1949. Price, $3.

A "multum in parvo;" replete with helpful information; concise; covers much ground; well arranged; amplified by numerous tables covering what every medical student and practitioner—for that matter—wants to know and needs to know. An excellent compendium.

Normal Values in Clinical Medicine

By F. William Sunderman, M.D., Professor of Experimental Medicine and Clinical Pathology, University of Texas Postgraduate School of Medicine, and Frederick Boerner, V.M.D., Late Associate Professor of Clinical Bacteriology, Graduate School of Medicine, University of Pennsylvania. W. B. Saunders Company, Philadelphia. 1950. Price, $14.

The purpose of this book is to present a discussion and compilations of values which may be termed "Normal." Forty-five collaborators assisted in the preparation of the text. The book is divided into nineteen sections and covers systems, such as the circulatory, respiratory, urinary, digestive, nervous, as well as the blood, muscles, genitalia, skin, eye, ear, nose, metabolism and nutrition, endocrines, teeth, saliva and anatomical normals. One section deals with statistical methods, food values, drugs and their doses, isotopes, life and actuarial tables. An appendix covers weights, measures and standards. The text is supplemented by 400 tables and several hundred illustrations.

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Physiology of the Eye: Vol I—Optics

By Arthur Linksz, M.D., New York University College of Medicine. Foreword by Walter B. Lancaster, M. D. Grune & Stratton, New York. 1950. Price, $7.50.

This is one of a series of three books on the physiology of the eye. The importance of physiologic optics in the training of the ophthalmologist is the essence of this story. Only he who is well grounded in this special field can pass judgment on the value of this book. Dr. Lancaster's foreword indicates that he feels that the book is deserving of high praise; that not only the physician who is preparing himself for ophthalmology, but also the medical student will profit from making use of this book in his studies. It is divided into two parts: Part I—Physics of Light; Part II—Geometric optics. Many illustrations further clarify the text.

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Clinical Electroencephalography

By Robert Cohn, M.D., Direcor of Neurological Research, U.S. Naval Hospital. ed. 5. McGraw-Hill Book Company, Inc., New York. 1949. Price, $14.

Studies of approximately 10,000 patients are compiled in this book. It is so replete with information in this subject that it must be read carefully with a full appreciation of the story it tells.

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From the Hills

By John Zahorsky, M.D., Former Professor of Pediatrics, St. Louis University School of Medicine. The C. V. Mosby Company, St. Louis. 1949. Price, $4.

Green's Manual of Pathology

Revised by H. W. C. Vines, M.D., Professor of Pathology, University of London; Dean Charing Cross Hospital Medical School. ed. 17. The Williams & Wilkins Company, Baltimore. 1949. Price, $8

A complete revision of a well known text; divided into two parts: I—General Pathology; II—Diseases of Special Tissues and Organs. There are nearly 1,200 pages of text, interspersed by 730 excellent illustrations, many in colors, which does, in part, account for the size of the book. A bibliography is missing which is a credit rather than not in a text prepared for undergraduate students.

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Huang Ti Nei Ching Su Wen; the Yellow Emperor's Classic of Internal Medicine

Translated from the Chinese with an Introductory Study by Elza Veith, M.A., Ph.D., Lecturer in the History of Medicine, University of Chicago. The Williams & Wilkins Company, Baltimore. 1949. Price, $5.

This is claimed to be the most important early Chinese medical book because it develops a theory of man in health and disease and a theory of medicine. It is also claimed that this theory has remained the dominating theory of Chinese indigenous medicine to the present day. It is a valuable addition to medical history.

The Eye and its Diseases

Edited by Conrad Berens, M.D., Managing Director of the Ophthalmological Foundation, etc., assisted by 92 international authorities. ed. 2. W. B. Saunders Company, Philadelphia. 1950. Price, $16.

This edition adheres to the outline of the first edition with additional chapters on illumination, physiologic chemistry and on gonioscopy. A general revision has been made and some new chapters have been added to bring the work in consonance with present day knowledge about diseases of the eye. More than 400 illustrations and many tables clarify the text where needed. This is a complete treatise on the field to be covered.

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An Atlas of the Blood and Bone Marrow

By R. Philip Custer, M.D., Assistant Professor of Pathology, University of Pennsylvania School of Medicine. W. B. Saunders Company, Philadelphia. 1950. Price, $15.

Besides giving complete coverage of this field, special commendation is deserved for the fine illustrations, in black and white and in colors. There are 300 of these illustrations. They are of large size thus really illustrating and of a clearness of detail seldom seen in similar illustrations. Author as well as publisher must be complimented for producing this fine work.

New Books and New Editions

Singer---Differential Diagnosis of Chest Diseases

By JACOB JESSE SINGER, M.D., F.A.C.P., F.A.C.C.P.

Medical Director of the Rose Lampert Graff Foundation, Beverly Hills; Consultant in Chest Diseases, Cedars of Lebanon Hospital, Los Angeles, California

This is a skillfully prepared monograph on how to diagnose frequently met diseases of the chest. Each major thoracic abnormality is considered fully. Case histories show methods of diagnosis.

New Book. 344 Pages. 171 Illustrations. $7.50

Goldberger---Unipolar Lead Electrocardiography

By EMANUEL GOLDBERGER, B.S., M.D.

Adjunct Physician, Montefiore Hospital, New York; Cardiographer and Associate Physician, Lincoln Hospital, New York; Consulting Cardiologist, St. Joseph's Hospital, Yonkers, New York; Diplomate of the American Board of Internal Medicine; Lecturer in Medicine, Columbia University

Dr. Goldberger describes each abnormality in terms of the three standard leads, the three 'augmented' unipolar extremity leads and the six unipolar precordial leads. The text is virtually rewritten for this new edition, which is 210 pages larger.

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